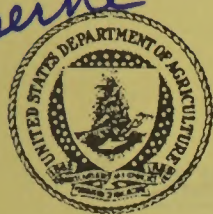


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United States  
Department of  
Agriculture

Foreign  
Agricultural  
Service

Circular Series  
WAP 9-89  
September 1989

# World Agricultural Production

## Inside This Issue.....

World Peanut Production

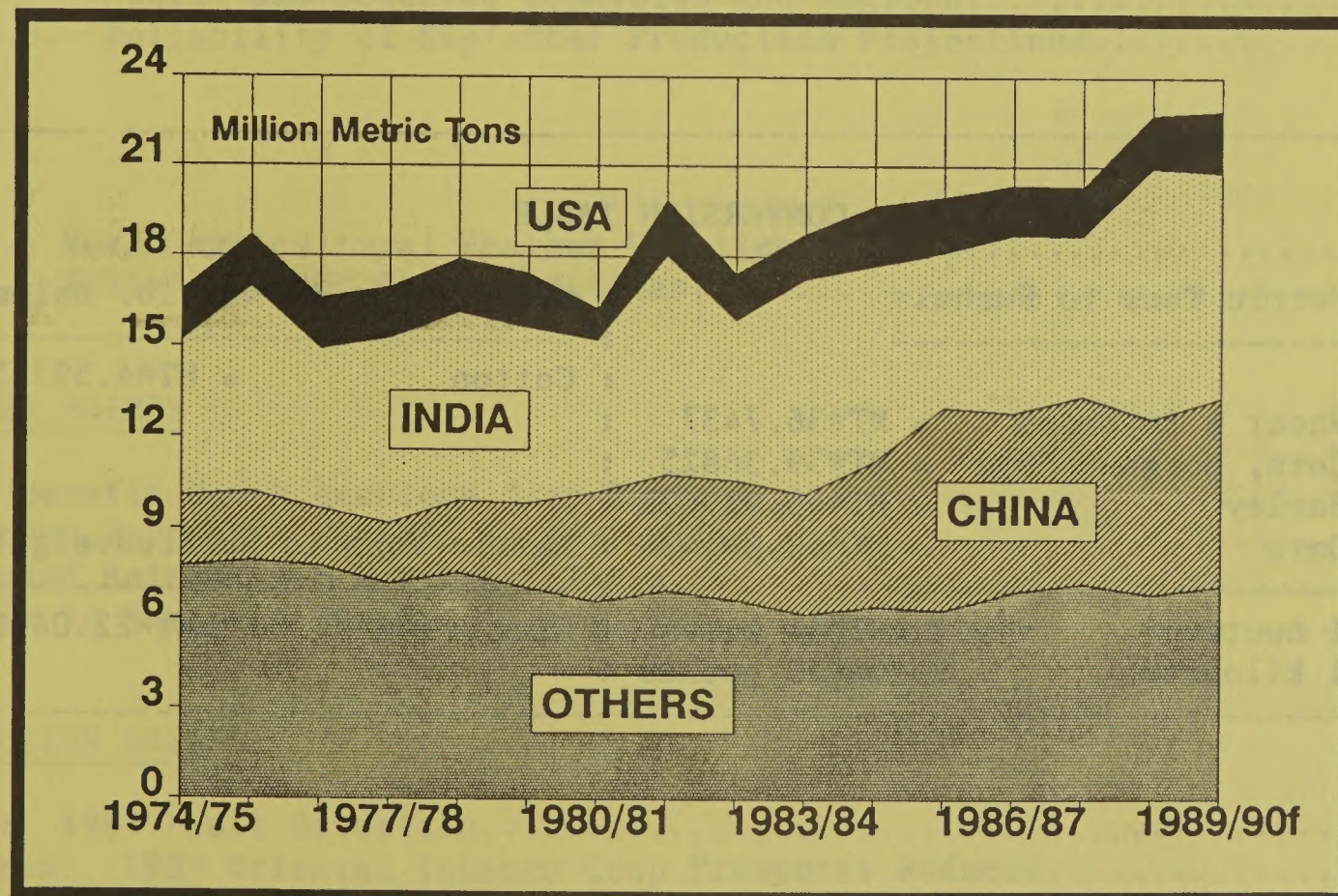
World Red Meat Production

World Production of Almonds and Filberts

Forestry Production: Asia and Scandinavia

India Peanut Production

## World Peanut Production





This report draws on information from USDA's global network of agricultural attaches and counselors, official statistics of foreign governments, other foreign source materials, and results of office analysis. Estimates of U.S. acreage, yield, and production are from USDA's Agricultural Statistics Board, except where noted. All numbers in this report are based on unrounded data and detail may not add to totals because of rounding. This report reflects official USDA estimates released in World Agricultural Supply and Demand Estimates (WASDE-234), September 12, 1989.

This report was prepared by the Foreign Production Estimates Division (FPED), FAS/USDA, Washington, D.C. 20250. Further information may be obtained by writing to the division or by calling (202) 382-8888.

\*\*\*\*\*  
 \* The next issue of World Agricultural Production will be released at 3 p.m. \*  
 \* eastern time on October 13, 1989. \*  
 \* \*  
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:			:
:	CONVERSION TABLE		:
:			:
:	Metric Tons to Bushels	:	Metric Tons to 480-lb. Bales
:	-----	:	-----
:		:	Cotton = MT*4.592917
:	Wheat & Soybeans = MT*36.7437	:	
:	Corn, Sorghum, Rye = MT*39.36825	:	
:	Barley = MT*45.929625	:	
:	Oats = MT*68.894438	:	Metric Tons to Hundredweight
:	-----	:	-----
:	1 hectare = 2.471044 acres	:	Rice = MT*22.04622
:	1 kilogram = 2.204622 pounds	:	
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## PRODUCTION HIGHLIGHTS FOR 1989/90

**WHEAT:** World production for 1989/90 is estimated at 528.0 million metric tons, up 1.0 million or less than 1 percent from last month and up 5 percent from last year's harvest. Important changes from last month include the following:

- o United States Production is estimated at 56.2 million tons, up 0.6 million or 1 percent from last month and up 14 percent from last year. The increase is attributed to higher estimated yield for spring wheat.
- o EC-12 Production is estimated at 78.8 million tons, up 1.3 million or 2 percent from last month and up 5 percent from 1988. Estimates were increased for France, Denmark, Greece, Ireland, and Belgium, but reduced for West Germany.
- o Canada Production is estimated at 23.4 million tons, down 0.6 million or 3 percent from last month but up 46 percent from the revised estimate of last year's crop. The estimate is based on a producer survey taken by Statistics Canada.
- o South Africa Production is estimated at 3.1 million tons, down 0.2 million or 6 percent from last month and down 11 percent from last year. The harvested area estimate was lowered because of reduced plantings in Cape Province.

**COARSE GRAINS:** World production for 1989/90 is estimated at 800.3 million tons, up 0.7 million or less than 1 percent from last month and up 10 percent from last year. Important changes from last month include the following:

- o United States Production is estimated at 217.3 million tons, down 0.6 million or less than 1 percent from last month but up 45 percent from last year's harvest. Increased estimated output of barley was more than offset by reductions in corn and sorghum.
- o EC-12 Production is estimated at 81.3 million tons, up 1.1 million or 1 percent from last month but down 9 percent from 1988. Estimates were raised for West Germany, Denmark, and France, but lowered for the United Kingdom, Spain, and Belgium.



- o Canada Production is estimated at 23.5 million tons, up 0.2 million or 1 percent from last month and up 19 percent from last year. Increases in the barley and oats estimates were partially offset by a reduction in estimated corn production. The figures are based on a survey of producers taken by Statistics Canada.
- o Indonesia Production is estimated at 5.2 million tons, up 0.2 million or 4 percent from last month and unchanged from last year. The increase is attributed to a higher estimated corn area.
- o East Europe Production is estimated at 69.1 million tons, up 0.2 million or less than 1 percent from last month and up 14 percent from last year's drought-affected harvest. Barley and oats estimates were raised for East Germany.
- o Thailand Production is estimated at 4.1 million tons, down 0.7 million or 15 percent from last month and down 8 percent from last year. The reduced area and yield estimates for corn are based on field travel by the U.S. agricultural attache.

**RICE (MILLED-BASIS):** World production for 1989/90 is estimated at a record 330.7 million tons, up 0.7 million or less than 1 percent from last month and up 1 percent from the 1988/89 crop. Important changes from last month include the following:

- o Bangladesh Production is estimated at 16.0 million tons, up 0.3 million or 2 percent from last month and up 4 percent from last year. Lack of severe flooding this summer has boosted the crop forecast to record production levels. The high yielding boro crop is also expected to continue the trend toward increased area in 1989/90.
- o Vietnam Production is estimated at 10.9 million tons, up 0.2 million or 2 percent from last month and up 3 percent from last year. The increase is attributed to higher yields from the winter-spring crop.

**OILSEEDS:** World production for 1989/90 is forecast at 213.4 million tons, down 1.3 million or less than 1 percent from last month but up 6 percent from last year. U.S. production is estimated at 58.8 million tons, down 0.4 million or 1 percent from last month but up 17 percent from last year. Foreign production is estimated at 154.6 million tons, down 0.9 million or 1 percent from last month but up 2 percent from record foreign output last year.



- \* **Soybeans:** World production for 1989/90 is forecast at 106.9 million tons, down 1.0 million or 1 percent from last month but up 13 percent from last year. Important changes from last month include the following:

o **United States** Production is estimated at 51.4 million tons, down 0.4 million or 1 percent from last month but up 23 percent from last year. This month's lower estimate is based on slightly reduced yield prospects.

o **Brazil** Production is estimated at 20.5 million tons, down 0.5 million or 2 percent from last month and down 11 percent from last year. The decrease reflects lower estimated soybean area in response to producer dissatisfaction with current crop prices and higher credit costs.

- \* **Cottonseed:** World production for 1989/90 is forecast at 30.9 million tons, down 0.1 million or less than 1 percent from last month and down 4 percent from last year. Important changes from last month include the following:

o **United States** Production is estimated at 4.3 million tons, up 0.2 million or 4 percent from last month but down 21 percent from last year. The increase is attributed to improved cotton production prospects over last month.

o **China** Production is estimated at 7.2 million tons, down 0.2 million or 3 percent from last month, but up 2 percent from last year. The reduction is based on a 3-percent decline in cotton production prospects because of lower estimated area.

- \* **Peanuts:** World production for 1989/90 is forecast at 22.8 million tons, down marginally from last month but up 0.2 million or 1 percent from last year.

- \* **Sunflowerseed:** World production for 1989/90 is forecast at 21.5 million tons, up 0.4 million or 2 percent from last month and up 5 percent from last year. Significant changes from last month include the following:

o **United States** Production is estimated at 0.95 million tons, down 50,000 tons or 5 percent from last month but up 12 percent from last year. Hot, dry weather in the Northern Plains has reduced sunflowerseed yield potential.

o **Argentina** Production is estimated at 4.0 million tons, up 0.5 million or 14 percent from last month and up 38 percent from last year. The increase is based on higher estimated area and yield.



- \* **Rapeseed:** World production for 1989/90 is estimated at 21.5 million tons, down 0.3 million or 2 percent from last month and down 4 percent from last year. A significant change from a month ago is the following:

- o **Canada**

Production is estimated at 3.4 million tons, down 0.3 million or 8 percent from last month and down 21 percent from last year. The estimate is based on a producer survey taken by Statistics Canada.

- \* **Flaxseed:** World production for 1989/90 is estimated at 2.0 million tons, down 0.1 million or 7 percent from last month but up 18 percent from last year. A significant change from last month is the following:

- o **Canada**

Production is estimated at 0.6 million tons, down 0.1 million or 19 percent from last month but up 64 percent from last year's drought-reduced crop. The estimate is based on a producer survey taken by Statistics Canada.

- \* **Copra:** World production for 1989/90 is estimated at 4.7 million tons, unchanged from last month and up 4 percent from last year.

- \* **Palm Kernels:** World production for 1989/90 is forecast at 3.1 million tons, unchanged from last month and up 0.1 million or 5 percent from last year.

- \* **Palm Oil:** World production for 1989/90 is estimated at 9.9 million tons, unchanged from last month and up 6 percent from the estimate for last year.

**COTTON:** World cotton production for 1989/90 is estimated at 80.8 million bales, up 0.2 million or less than 1 percent from last month but down 3.2 million or 4 percent from last year. Foreign production is estimated at 68.5 million bales, down 0.3 million from last month and slightly below the estimate for 1988/89. Important changes from a month ago include the following:

- o **United States**

Production is estimated at 12.3 million bales, up 0.4 million or 4 percent from last month but down 20 percent from last year. Yield prospects have improved, especially in Mississippi and Texas, in the past month.



- o **China** Production is estimated at 19.5 million bales, down 0.5 million or 3 percent from last month but up 2 percent from last year. Estimated planted area was reduced by 100,000 hectares this month based on reports from Chinese authorities.
- o **Spain** Production is estimated at 240,000 bales, down 160,000 or 40 percent from last month and 52 percent below the 1988/89 harvest. Extended drought severely restricted irrigation supplies, reducing both potential yields and acreage available for harvest.
- o **Brazil** Production is forecast at 3.7 million bales, up 0.2 million or 6 percent from last month and up 12 percent from the 1988/89 harvest. Relatively strong cotton prices are expected to result in additional cotton plantings in the center-south region at the expense of soybeans.
- o **Pakistan** Production is estimated at 6.9 million bales, up 0.1 million or 1 percent from last month and up 4 percent from the record 1988/89 harvest. Growing conditions have been consistently good, with only light rains in the early-harvest period.



TABLE 1

*U.S. Crop Acreage, Yield, and Production 1/*

Commodity	--Planted Area--			--Harvested Area--			--Yield--			--Production--		
	1987/88	1988/89	Proj. 1989/90	1987/88	1988/89	Proj. 1989/90	1987/88	1988/89	1989/90 Proj. August Sept.	1987/88	1988/89	1989/90 Proj. August Sept.
	--Million Acres--			--Million Acres--			--Bushels per Acre--			--Million Bushels--		
All Wheat	65.8	65.5	76.8	56.0	53.2	62.7	37.7	34.1	32.6	2107	1811	2044
Winter	48.8	48.8	55.2	39.3	39.8	41.9	39.8	39.2	35.0	1565	1561	1466
Other	17.0	16.7	21.5	16.6	13.4	20.8	32.6	18.7	27.8	542	250	578
Rye	2.5	2.4	2.1	0.7	0.6	0.5	28.3	24.8		20	15	15
Soybeans	58.0	58.9	60.5	57.0	57.4	59.1	33.7	26.8	32.3	1923	1539	1905
												1889
Corn	65.7	67.6	72.3	59.2	58.2	65.2	119.4	84.6	112.8	7072	4921	7348
Sorghum	11.8	10.4	11.9	10.6	9.1	10.5	69.7	63.8	63.1	739	578	664
Barley	11.0	9.7	9.3	10.1	7.5	8.6	52.7	38.6	45.8	530	291	392
Oats	18.0	13.9	12.1	6.9	5.6	7.3	54.0	39.1	52.3	374	219	381
							--Pounds per Acre--			---Million CWT.---		
Rice	2.4	2.9	2.8	2.3	2.9	2.7	5,555	5,511	5,497	129.6	159.5	150.9
												152.3
										---Million 480-Pound---		
All Cotton	10.4	12.5	10.5	10.0	11.9	9.5	706	619	595	14.8	15.4	11.8
												12.3

1/ Estimates from USDA Agricultural Statistics Board for 1987/88, 1988/89, and 1989/90, except rye.

Rye production estimates from USDA Interagency Commodity Estimates Committees.

SEPTEMBER 1989

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA



TABLE 2

## World Crop Production Summary

Commodity	World	Total Foreign	North America		Europe			USSR	Asia				South America		Selected Other			All Other Countries		
			United States	Canada	Mexico	EC-12	Oth. W. Europe		Eastern Europe	China	India	Indonesia	Paki- stan	Thai- land	Argen- tina	Brazil	Aus- tralia		South Africa	Turkey
---Million Metric Tons---																				
Wheat 1987/88 1988/89 prel. 1989/90 proj. August September	501.8	444.4	57.4	26.0	3.7	71.4	4.0	39.8	83.3	85.8	44.3	0.0	12.0	0.0	8.8	6.1	12.4	3.1	13.0	16.1
	501.0	451.7	49.3	16.0	3.2	74.9	3.9	45.1	84.4	86.4	45.1	0.0	12.7	0.0	8.0	5.8	14.5	3.5	15.0	17.2
	527.0	471.3	55.6	24.0	3.9	77.5	4.1	41.5	87.0	91.0	51.0	0.0	14.3	0.0	11.0	4.8	14.3	3.3	12.0	16.0
	528.0	471.8	56.2	23.4	3.9	78.8	4.0	41.5	87.0	91.0	51.0	0.0	14.2	0.0	11.0	4.8	14.3	3.1	12.0	16.0
Coarse Grains 1987/88 1988/89 prel. 1989/90 proj. August September	791.5	575.7	215.9	25.5	14.5	82.4	10.9	63.9	113.7	95.8	23.5	4.8	1.7	3.0	13.1	25.4	6.8	7.9	9.3	62.6
	730.0	580.4	149.6	19.7	14.3	88.9	11.2	60.8	97.5	94.2	32.6	5.2	1.7	4.5	6.7	26.7	6.7	12.4	10.0	74.5
	799.6	581.7	218.0	23.3	15.0	80.3	11.5	68.9	100.0	95.7	32.4	5.0	1.8	4.8	12.5	24.8	7.2	8.8	9.1	67.7
	800.3	582.9	217.3	23.5	15.0	81.3	11.6	69.1	100.0	95.7	32.4	5.2	1.8	4.1	12.5	24.8	7.2	8.8	9.1	67.9
Rice (Milled) 1987/88 1988/89 1989/90 August September	312.8	308.7	4.1	0.0	0.4	1.3	0.0	0.2	1.7	121.7	56.4	27.0	3.2	11.9	0.2	8.0	0.5	0.0	0.2	21.9
	327.8	322.7	5.1	0.0	0.3	1.3	0.0	0.2	1.9	118.4	70.0	27.5	3.1	13.9	0.2	7.5	0.6	0.0	0.2	22.2
	330.0	325.2	4.8	0.0	0.4	1.2	0.0	0.2	1.8	122.5	66.0	28.0	3.5	14.2	0.3	7.2	0.5	0.0	0.2	22.7
	330.7	325.9	4.8	0.0	0.4	1.2	0.0	0.2	1.8	122.5	66.0	28.0	3.5	14.2	0.3	7.2	0.5	0.0	0.2	22.7
Total Grains 1/ 1987/88 1988/89 prel. 1989/90 proj. August September	1,606.2	1,328.8	277.3	51.5	18.6	155.1	14.9	104.0	198.7	303.4	124.2	31.8	16.9	14.9	22.1	39.5	19.8	11.0	22.4	179.9
	1,558.8	1,354.9	203.9	35.7	17.8	165.0	15.1	106.2	183.8	298.9	147.7	32.7	17.4	18.4	14.9	40.0	21.7	15.9	25.2	198.6
	1,656.6	1,378.2	278.4	47.3	19.3	159.0	15.6	110.6	188.8	309.2	149.4	33.0	19.6	19.0	23.8	36.8	22.0	12.1	21.2	191.4
	1,659.0	1,380.6	278.4	46.9	19.3	161.4	15.7	110.8	188.8	309.2	149.4	33.2	19.5	18.3	23.8	36.8	22.0	11.9	21.2	192.4
Oilseeds 2/ 1987/88 1988/89 prel. 1989/90 proj. August September	207.9	147.3	60.6	5.9	1.2	12.2	0.5	5.3	11.8	33.7	13.6	1.7	3.2	0.6	14.0	19.7	0.8	1.0	2.0	20.2
	201.7	151.6	50.1	5.9	0.9	11.3	0.6	5.1	12.7	30.8	18.4	1.9	3.3	0.7	10.5	24.4	0.8	0.9	2.3	21.1
	214.7	155.5	59.2	5.8	1.2	10.2	0.7	5.8	12.5	32.7	16.9	2.1	3.4	0.7	15.2	22.6	0.9	0.9	2.4	21.7
	213.4	154.6	58.8	5.2	1.2	10.1	0.7	5.8	12.5	32.5	16.9	2.1	3.4	0.7	15.7	22.1	0.9	0.9	2.4	21.7
---Million 480-Pound Bales---																				
Cotton 1987/88 1988/89 prel. 1989/90 proj. August September	80.8	66.1	14.8	0.0	1.0	1.2	0.0	0.1	11.3	19.5	7.1	0.0	6.8	0.1	1.3	3.5	1.3	0.4	2.5	10.1
	84.0	68.6	15.4	0.0	1.4	1.6	0.0	0.1	12.6	19.1	8.2	0.0	6.6	0.2	0.8	3.3	1.2	0.3	3.0	10.2
	80.6	68.8	11.8	0.0	0.9	1.6	0.0	0.1	11.5	20.0	8.4	0.0	6.8	0.1	0.9	3.5	1.4	0.4	2.9	10.5
	80.8	68.5	12.3	0.0	0.9	1.4	0.0	0.1	11.5	19.5	8.4	0.0	6.9	0.1	0.9	3.7	1.4	0.4	2.9	10.5

1/ Includes total of wheat, coarse grains, and rice (milled) shown above. Estimates of Soviet total grain production, including wheat, coarse grains, rice (rough), minor grains and pulses are 211.4 million tons in 1987/88, 195.1 million in 1988/89, and 200.0 million forecast in 1989/90.

2/ Totals for major regions and countries include the six major oilseeds shown elsewhere in this report, while world and total foreign also include copra and palm kernels for all countries.

Note: Entries of 0.0 indicate no reported or insignificant production.



TABLE 3

## Wheat Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel. Proj.			Prel. 1989/90 Proj.				Prel. 1989/90 Proj.			
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
	---Million Hectares---			---Metric Tons Per Hectare---				---Million Metric Tons---			
World	219.9	218.2	226.6	2.28	2.30	2.33	2.33	501.8	501.0	527.0	528.0
United States	22.6	21.5	25.4	2.53	2.29	2.19	2.22	57.4	49.3	55.6	56.2
Total Foreign	197.3	196.6	201.2	2.25	2.30	2.34	2.34	444.4	451.7	471.3	471.8
Maj. Foreign Exporters	43.3	42.1	45.2	2.74	2.69	2.81	2.82	118.6	113.3	126.8	127.5
Argentina	4.8	4.7	5.7	1.84	1.70	1.93	1.93	8.8	8.0	11.0	11.0
Australia	9.1	8.9	9.5	1.37	1.62	1.51	1.51	12.4	14.5	14.3	14.3
Canada	13.5	13.0	13.6	1.93	1.23	1.76	1.72	26.0	16.0	24.0	23.4
EC-12	15.9	15.5	16.3	4.50	4.82	4.75	4.83	71.4	74.9	77.5	78.8
Major Importers	95.4	96.3	96.8	2.34	2.40	2.42	2.41	223.6	231.1	233.6	233.7
Brazil	3.5	3.5	3.1	1.76	1.68	1.60	1.55	6.1	5.8	4.8	4.8
China	28.8	28.8	29.8	2.98	3.00	3.05	3.05	85.8	86.4	91.0	91.0
Eastern Europe	10.5	10.6	10.6	3.78	4.24	3.92	3.92	39.8	45.1	41.5	41.5
Egypt	0.6	0.6	0.6	4.23	4.76	4.76	4.76	2.4	2.8	3.0	3.0
Other N. Africa */	5.1	4.4	4.9	1.01	1.25	1.14	1.11	5.2	5.5	5.3	5.4
Japan	0.3	0.3	0.3	3.19	3.62	3.30	3.30	0.9	1.0	0.9	0.9
USSR	46.7	48.1	47.5	1.78	1.76	1.83	1.83	83.3	84.4	87.0	87.0
Other Foreign	58.6	58.3	59.3	1.75	1.84	1.86	1.87	102.2	107.3	111.0	110.6
India	23.1	22.6	23.6	1.92	2.00	2.16	2.16	44.3	45.1	51.0	51.0
Iran	6.1	6.3	6.3	0.98	1.08	1.00	1.00	6.0	6.8	6.3	6.3
Mexico	0.9	0.8	1.0	4.11	4.00	4.11	4.11	3.7	3.2	3.9	3.9
Non-EC W. Europe	0.9	0.8	0.9	4.20	4.89	4.66	4.66	4.0	3.9	4.1	4.0
Pakistan	7.7	7.3	7.5	1.56	1.73	1.89	1.89	12.0	12.7	14.3	14.2
South Africa	1.7	2.0	1.8	1.81	1.76	1.69	1.69	3.1	3.5	3.3	3.1
Turkey	8.7	8.8	8.7	1.49	1.71	1.38	1.38	13.0	15.0	12.0	12.0
Others	9.4	9.7	9.5	1.72	1.76	1.68	1.69	16.1	17.2	16.0	16.0

\*/ Algeria, Libya, Morocco, and Tunisia.

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FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA



TABLE 4  
Coarse Grains Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel. Proj.			Prel. 1989/90 Proj.				Prel. 1989/90 Proj.			
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
TOTAL COARSE GRAINS 1/ -----	---Million Hectares---			---Metric Tons Per Hectare---				---Million Metric Tons---			
World	323.2	327.3	328.1	2.45	2.23	2.44	2.44	791.5	730.0	799.6	800.3
United States	35.4	32.8	37.2	6.10	4.57	5.85	5.84	215.9	149.6	218.0	217.3
Total Foreign	287.8	294.6	290.8	2.00	1.97	2.00	2.00	575.7	580.4	581.7	582.9
Maj. Foreign Exporters	23.4	21.2	23.3	2.40	2.36	2.44	2.41	56.3	50.0	56.6	56.1
Argentina	4.4	3.0	4.2	2.99	2.22	2.98	2.98	13.1	6.7	12.5	12.5
Australia	4.6	4.6	4.7	1.49	1.46	1.54	1.54	6.8	6.7	7.2	7.2
Canada	8.0	7.1	8.2	3.21	2.76	2.97	2.88	25.5	19.7	23.3	23.5
South Africa	4.6	4.6	4.6	1.73	2.68	1.89	1.89	7.9	12.4	8.8	8.8
Thailand	2.0	1.8	1.6	1.51	2.49	2.65	2.54	3.0	4.5	4.8	4.1
Major Importers	107.7	106.7	103.9	2.66	2.57	2.67	2.68	286.8	274.3	277.2	278.6
Eastern Europe	17.8	18.2	18.2	3.58	3.33	3.78	3.79	63.9	60.8	68.9	69.1
EC-12	19.0	19.3	18.7	4.33	4.61	4.32	4.36	82.4	88.9	80.3	81.3
Other W. Europe	3.1	3.2	3.1	3.48	3.46	3.59	3.72	10.9	11.2	11.5	11.6
Mexico	7.8	7.6	7.9	1.87	1.88	1.90	1.90	14.5	14.3	15.0	15.0
USSR	59.5	57.8	55.5	1.91	1.69	1.80	1.80	113.7	97.5	100.0	100.0
Other Major Import. 2/	0.5	0.5	0.5	3.14	3.47	3.11	3.11	1.5	1.6	1.5	1.5
Other Foreign	156.6	166.7	163.6	1.48	1.54	1.52	1.52	232.5	256.2	247.8	248.2
Brazil	13.6	14.0	13.5	1.87	1.91	1.84	1.84	25.4	26.7	24.8	24.8
China	28.7	27.8	28.4	3.33	3.39	3.36	3.36	95.8	94.2	95.7	95.7
India	36.3	39.7	39.5	0.65	0.82	0.82	0.82	23.5	32.6	32.4	32.4
Indonesia	2.7	2.9	2.9	1.79	1.82	1.92	1.82	4.8	5.2	5.0	5.2
Nigeria	9.4	10.1	10.2	0.72	0.84	0.85	0.85	6.8	8.5	8.7	8.7
Philippines	3.7	3.8	3.6	1.18	1.21	1.18	1.25	4.4	4.5	4.5	4.5
Turkey	4.3	4.4	4.4	2.17	2.29	2.08	2.08	9.3	10.0	9.1	9.1
Others	57.9	64.2	61.2	1.08	1.16	1.11	1.11	62.6	74.5	67.7	67.9
BARLEY -----											
World	79.6	77.5	75.5	2.27	2.15	2.18	2.19	180.7	166.4	164.0	165.8
United States	4.1	3.0	3.5	2.83	2.07	2.46	2.52	11.5	6.3	8.5	8.7
Total Foreign	75.6	74.5	72.1	2.24	2.15	2.17	2.18	169.1	160.0	155.4	157.1
Australia	2.4	2.4	2.4	1.46	1.40	1.52	1.52	3.5	3.4	3.7	3.7
Canada	5.0	4.2	4.7	2.79	2.46	2.67	2.64	14.0	10.2	12.0	12.4
China	3.4	3.3	3.4	1.78	1.92	2.05	2.05	6.0	6.3	6.9	6.9
Eastern Europe	4.3	4.3	4.4	3.79	3.73	3.73	3.76	16.3	16.2	16.3	16.4
EC-12	12.2	12.2	11.7	3.83	4.14	3.89	3.98	46.8	50.6	45.5	46.7
Other W. Europe	1.7	1.8	1.6	3.10	3.21	3.34	3.45	5.2	5.7	5.6	5.4
Turkey	3.2	3.3	3.3	1.88	2.12	1.82	1.82	6.0	7.0	6.0	6.0
USSR	30.7	29.7	28.0	1.91	1.50	1.63	1.63	58.4	44.5	45.5	45.5
Others	12.7	13.2	12.7	1.02	1.22	1.13	1.12	12.9	16.1	14.1	14.2

FOOTNOTES AT END OF TABLE

CONTINUED



TABLE 4 (Continued)  
Coarse Grains Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel.		Proj.	Prel.		1989/90 Proj.		Prel.		1989/90 Proj.	
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
CORN	---Million Hectares---			---Metric Tons Per Hectare---				---Million Metric Tons---			
World	125.0	125.2	128.3	3.58	3.19	3.61	3.61	447.4	399.0	464.0	462.5
United States	24.0	23.5	26.4	7.50	5.31	7.08	7.05	179.6	125.0	186.7	186.0
Total Foreign	101.0	101.6	101.9	2.65	2.70	2.72	2.71	267.8	274.0	277.4	276.5
Maj. Foreign Exporters	8.0	7.1	7.7	2.35	2.91	2.68	2.65	18.8	20.6	21.0	20.3
Argentina	2.6	1.7	2.5	3.46	2.76	3.40	3.40	9.0	4.7	8.5	8.5
South Africa	3.7	3.8	3.8	1.93	3.10	2.13	2.13	7.1	11.7	8.0	8.0
Thailand	1.8	1.6	1.4	1.56	2.63	2.81	2.71	2.7	4.2	4.5	3.8
Major Importers	21.9	22.2	22.2	3.79	3.81	3.99	3.99	83.2	84.3	88.5	88.6
Eastern Europe	7.3	7.3	7.3	4.14	3.72	4.72	4.72	30.3	27.3	34.6	34.6
EC-12	3.7	4.0	3.9	6.99	7.07	6.49	6.44	25.9	28.6	25.5	25.4
Other W. Europe	0.2	0.2	0.2	8.01	8.31	8.08	8.73	1.8	1.9	1.7	1.9
Mexico	6.0	6.0	6.1	1.65	1.68	1.69	1.69	9.9	10.1	10.3	10.3
USSR	4.6	4.4	4.5	3.24	3.62	3.56	3.56	14.8	16.0	16.0	16.0
Other Maj. Import. 2/	0.1	0.1	0.1	4.17	4.18	4.18	4.18	0.5	0.4	0.5	0.5
Other Foreign	71.1	72.4	72.1	2.33	2.33	2.33	2.33	165.8	169.1	167.8	167.7
Brazil	13.2	13.5	13.0	1.88	1.93	1.85	1.85	24.7	26.0	24.0	24.0
Canada	1.0	1.0	1.0	7.02	5.47	6.20	5.67	7.0	5.4	6.2	5.8
China	20.2	19.6	20.0	3.92	3.95	3.90	3.90	79.2	77.4	78.0	78.0
Egypt	0.8	0.8	0.8	5.14	4.97	5.21	5.33	4.2	4.1	4.3	4.4
India	5.5	5.9	6.0	1.00	1.36	1.33	1.33	5.5	8.0	8.0	8.0
Indonesia	2.7	2.9	2.9	1.79	1.82	1.92	1.82	4.8	5.2	5.0	5.2
Philippines	3.7	3.8	3.6	1.18	1.21	1.18	1.25	4.4	4.5	4.5	4.5
Zimbabwe	1.2	1.2	1.2	1.80	1.56	1.63	1.63	2.2	1.9	2.0	2.0
Others	22.7	23.8	23.6	1.48	1.54	1.52	1.52	33.8	36.6	35.9	35.9
SORGHUM											
World	42.0	44.4	45.1	1.33	1.27	1.33	1.32	56.0	56.3	59.7	59.6
United States	4.3	3.7	4.3	4.38	4.00	3.96	3.93	18.8	14.7	16.9	16.7
Total Foreign	37.7	40.7	40.8	0.99	1.02	1.05	1.05	37.2	41.6	42.9	42.9
Argentina	1.0	0.7	1.0	3.00	1.79	3.00	3.00	3.0	1.3	3.0	3.0
Australia	0.7	0.6	0.8	1.86	1.68	1.88	1.88	1.4	1.1	1.5	1.5
China	1.9	1.8	1.9	2.91	2.96	2.93	2.93	5.4	5.3	5.5	5.5
India	15.6	16.2	16.2	0.61	0.71	0.71	0.71	9.5	11.5	11.5	11.5
Mexico	1.4	1.3	1.4	2.91	2.92	2.98	2.98	4.0	3.7	4.1	4.1
Nigeria	4.3	4.4	4.4	0.67	0.80	0.80	0.80	2.9	3.5	3.5	3.5
South Africa	0.3	0.3	0.3	1.52	1.58	1.65	1.65	0.5	0.4	0.5	0.5
Sudan	3.0	5.3	4.8	0.43	0.83	0.63	0.63	1.3	4.4	3.0	3.0
Thailand	0.2	0.2	0.2	1.10	1.43	1.45	1.45	0.2	0.3	0.3	0.3
Others	9.3	9.9	9.8	0.97	1.03	1.01	1.01	9.0	10.2	9.9	9.9

FOOTNOTES AT END OF TABLE

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FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA



TABLE 4 (Continued)  
Coarse Grains Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel.	Proj.		Prel.	1989/90	Proj.		Prel.	1989/90	Proj.	
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
OATS	---Million Hectares---			---Metric Tons Per Hectare---				---Million Metric Tons---			
World	23.6	22.3	22.4	1.84	1.69	1.82	1.81	43.3	37.7	40.4	40.6
United States	2.8	2.3	2.9	1.94	1.40	1.88	1.88	5.4	3.2	5.5	5.5
Total Foreign	20.8	20.1	19.5	1.82	1.72	1.81	1.80	37.9	34.5	34.9	35.0
USSR	11.8	10.9	10.0	1.57	1.40	1.50	1.50	18.5	15.3	15.0	15.0
Maj. Foreign Exporters	3.5	3.6	3.9	1.96	1.87	1.93	1.91	6.8	6.7	7.3	7.4
Argentina	0.5	0.4	0.5	1.30	1.10	1.39	1.39	0.7	0.4	0.6	0.6
Australia	1.3	1.4	1.3	1.32	1.41	1.32	1.32	1.7	2.0	1.7	1.7
Canada	1.3	1.4	1.7	2.37	2.18	2.19	2.20	3.0	3.0	3.5	3.8
Sweden	0.4	0.4	0.4	3.63	3.14	3.37	3.17	1.4	1.3	1.5	1.3
Other Foreign	5.5	5.5	5.6	2.27	2.26	2.29	2.27	12.5	12.5	12.6	12.6
China	0.6	0.6	0.6	1.10	1.19	1.20	1.20	0.6	0.7	0.7	0.7
Eastern Europe	1.4	1.4	1.4	2.79	2.62	2.72	2.74	4.0	3.7	3.9	3.9
East Germany	0.1	0.2	0.2	4.28	3.30	3.81	3.94	0.6	0.5	0.6	0.7
Poland	0.9	0.9	0.9	2.84	2.62	2.70	2.70	2.4	2.2	2.3	2.3
EC-12	1.8	1.8	1.7	3.02	3.12	2.99	2.81	5.3	5.5	5.1	4.9
France	0.3	0.3	0.3	3.91	3.86	3.90	3.90	1.0	1.0	1.0	1.0
West Germany	0.6	0.6	0.5	4.30	4.23	4.02	3.75	2.4	2.4	2.1	2.0
Finland	0.4	0.4	0.4	2.21	2.21	2.75	3.00	0.8	0.9	1.1	1.3
Norway	0.1	0.1	0.1	3.87	2.98	3.68	3.68	0.5	0.4	0.5	0.5
Others	1.3	1.3	1.3	1.06	1.07	1.07	1.07	1.3	1.4	1.4	1.4
RYE											
World	15.6	15.9	16.3	2.12	2.07	2.19	2.21	33.0	33.0	35.8	36.2
United States	0.3	0.2	0.2	1.82	1.55	1.82	1.82	0.5	0.4	0.4	0.4
Total Foreign	15.3	15.7	16.1	2.13	2.08	2.20	2.22	32.5	32.6	35.4	35.8
USSR	9.7	10.1	10.3	1.86	1.83	1.94	1.94	18.1	18.5	20.0	20.0
Maj. Foreign Exporter											
Canada	0.3	0.3	0.4	1.58	1.04	1.74	1.74	0.5	0.3	0.6	0.6
Other Foreign											
Eastern Europe	3.7	3.9	3.9	2.72	2.58	2.74	2.74	10.0	10.0	10.8	10.8
East Germany	0.7	0.6	0.7	3.49	2.93	3.12	3.12	2.3	1.8	2.0	2.0
Poland	2.6	2.9	2.9	2.57	2.51	2.70	2.70	6.8	7.2	7.8	7.8
Czechoslovakia	0.1	0.2	0.2	3.49	3.42	3.42	3.42	0.5	0.5	0.5	0.5
EC-12	1.0	0.9	1.0	2.93	3.05	3.00	3.28	3.0	2.9	2.9	3.2
Denmark	0.1	0.1	0.1	3.77	4.58	4.20	4.80	0.5	0.4	0.4	0.5
West Germany	0.4	0.4	0.4	3.89	4.19	4.18	4.68	1.6	1.6	1.6	1.9
Others	0.6	0.5	0.6	1.77	2.02	2.00	2.12	1.0	1.0	1.1	1.2

1/ Total of barley, corn, sorghum, oats, and rye shown below plus millet and mixed grain.

2/ Japan, Republic of Korea, and Taiwan.



TABLE 5

## Rice Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production--- (Rough Basis)			---Milling Rate---				---Production--- (Milled Basis)																																																												
	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90	1987/88	1988/89	1989/90																																																												
	Prel.	Proj.		Prel.	Aug.	Sept.	Prel.	Aug.	Sept.	Prel.	Aug.	Sept.	Prel.	Aug.	Sept.																																																												
	---Million Hectares---															---Metric Tons Per Hectare---															---Million Metric Tons---															---In Percent---															---Million Metric Tons---														
World	140.6	145.0	145.5	3.28	3.34	3.36	3.37	461.4	484.2	488.6	489.7	67.8	67.7	67.5	67.5	312.8	327.8	330.0	330.7																																																								
United States	0.9	1.2	1.1	6.23	6.17	6.16	6.22	5.9	7.2	6.8	6.9	69.9	70.0	70.0	70.0	4.1	5.1	4.8	4.8																																																								
Total Foreign	139.7	143.8	144.4	3.26	3.32	3.34	3.34	455.5	477.0	481.7	482.8	67.8	67.7	67.5	67.5	308.7	322.7	325.2	325.9																																																								
Maj. Foreign Exporters	15.6	16.6	16.9	2.20	2.29	2.33	2.33	34.4	38.1	39.3	39.3	64.1	64.1	64.2	64.2	22.0	24.4	25.2	25.2																																																								
Burma	4.4	4.5	4.5	2.59	2.80	2.78	2.78	11.5	12.5	12.5	12.5	60.0	60.0	60.0	60.0	6.9	7.5	7.5	7.5																																																								
Pakistan	2.0	1.9	2.1	2.48	2.37	2.56	2.56	4.9	4.6	5.3	5.3	66.7	66.7	66.7	66.7	3.2	3.1	3.5	3.5																																																								
Thailand	9.2	10.3	10.3	1.95	2.05	2.09	2.09	18.0	21.0	21.5	21.5	66.0	66.0	66.0	66.0	11.9	13.9	14.2	14.2																																																								
Major Importers	12.9	13.0	13.0	4.18	4.28	4.32	4.31	54.0	55.9	56.0	56.0	66.2	66.2	66.1	66.1	35.7	37.0	37.0	37.0																																																								
EC-12	0.3	0.3	0.3	5.78	5.59	5.65	5.61	1.9	1.9	1.9	1.9	67.8	66.3	67.0	67.0	1.3	1.3	1.2	1.2																																																								
Indonesia	9.8	9.8	9.8	4.24	4.32	4.40	4.40	41.5	42.3	43.1	43.1	65.0	65.0	65.0	65.0	27.0	27.5	28.0	28.0																																																								
Nigeria	0.6	0.6	0.6	1.31	1.42	1.49	1.49	0.8	0.9	1.0	1.0	66.5	66.5	66.5	66.5	0.6	0.6	0.6	0.6																																																								
Republic of Korea	1.3	1.3	1.2	6.02	6.64	6.40	6.40	7.6	8.4	7.8	7.8	72.3	72.3	72.3	72.3	5.5	6.1	5.6	5.6																																																								
Other Maj. Import. */	0.9	1.0	1.0	2.33	2.34	2.37	2.32	2.1	2.3	2.3	2.4	65.5	65.4	65.5	65.4	1.4	1.5	1.5	1.6																																																								
Other Foreign	111.1	114.1	114.5	3.30	3.36	3.38	3.38	367.1	383.0	386.5	387.5	68.4	68.2	68.0	68.0	251.0	261.3	263.0	263.6																																																								
Australia	0.1	0.1	0.1	7.12	7.50	7.19	7.19	0.8	0.8	0.8	0.8	71.0	71.5	71.5	71.5	0.5	0.6	0.5	0.5																																																								
Bangladesh	10.3	10.5	10.3	2.24	2.19	2.24	2.33	23.1	23.0	23.6	24.0	66.7	66.7	66.7	66.7	15.4	15.3	15.7	16.0																																																								
Brazil	6.0	5.3	5.5	1.98	2.08	1.93	1.93	11.8	11.0	10.6	10.6	68.0	68.0	68.0	68.0	8.0	7.5	7.2	7.2																																																								
China	32.1	31.9	32.2	5.41	5.30	5.49	5.43	173.9	169.1	175.0	175.0	70.0	70.0	70.0	70.0	121.7	118.4	122.5	122.5																																																								
India	38.3	41.5	41.5	2.21	2.53	2.39	2.39	84.6	105.0	99.0	99.0	66.7	66.7	66.7	66.7	56.4	70.0	66.0	66.0																																																								
Japan	2.1	2.1	2.1	6.19	5.82	6.32	6.32	13.3	12.4	13.5	13.5	72.8	72.8	72.8	72.8	9.7	9.0	9.8	9.8																																																								
Philippines	3.3	3.4	3.4	2.65	2.70	2.69	2.74	8.7	9.1	9.2	9.4	65.0	65.0	65.0	65.0	5.6	5.9	6.0	6.1																																																								
USSR	0.7	0.7	0.7	4.13	4.27	4.18	4.18	2.7	2.9	2.8	2.8	65.0	65.0	65.0	65.0	1.7	1.9	1.8	1.8																																																								
Vietnam	5.6	5.8	5.8	2.74	2.83	2.84	2.90	15.3	16.3	16.5	16.8	65.0	65.0	65.0	65.0	9.9	10.6	10.7	10.9																																																								
Others	12.6	12.9	12.9	2.62	2.59	2.76	2.76	33.0	33.4	35.7	35.7	66.3	66.3	63.8	63.8	21.9	22.2	22.7	22.7																																																								

\* / Hong Kong, Iran, Iraq, Ivory Coast, and Saudi Arabia.



TABLE 6  
Oilseeds Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	:	---Area---			:	---Yield---				:	---Production---			
	:				:					:				
	:	Prel.	Proj.		:	Prel.	1989/90	Proj.	:	Prel.	1989/90	Proj.		
	:	1987/88	1988/89	1989/90	:	1987/88	1988/89	Aug.	Sept.	:	1987/88	1988/89	Aug.	Sept.
<hr/>														
	:	---Million Hectares---			:	---Metric Tons Per Hectare---				:	---Million Metric Tons---			
	:				:					:				
SOYBEANS	:				:					:				
-----	:				:					:				
World	:	54.15	55.60	57.51	:	1.91	1.70	1.86	1.86	:	103.35	94.68	107.92	106.89
	:				:					:				
United States	:	23.06	23.22	23.91	:	2.27	1.80	2.17	2.15	:	52.33	41.88	51.85	51.42
	:				:					:				
Total Foreign	:	31.09	32.38	33.60	:	1.64	1.63	1.64	1.65	:	51.02	52.80	56.06	55.47
	:				:					:				
Maj. Foreign Exporters	:	14.78	16.20	16.50	:	1.88	1.83	1.85	1.88	:	27.72	29.60	31.50	31.00
Argentina	:	4.26	4.00	5.00	:	2.28	1.65	2.10	2.10	:	9.70	6.60	10.50	10.50
Brazil	:	10.52	12.20	11.50	:	1.71	1.89	1.75	1.78	:	18.02	23.00	21.00	20.50
	:				:					:				
Other Foreign	:	16.31	16.18	17.10	:	1.43	1.43	1.44	1.43	:	23.30	23.20	24.56	24.47
Canada	:	0.46	0.53	0.54	:	2.75	2.16	2.36	2.15	:	1.27	1.15	1.25	1.16
China	:	8.41	8.02	8.30	:	1.48	1.45	1.45	1.45	:	12.43	11.65	12.00	12.00
Eastern Europe	:	0.53	0.56	0.57	:	1.31	1.19	1.44	1.44	:	0.69	0.67	0.82	0.82
India	:	1.68	1.80	1.80	:	0.58	0.78	0.72	0.72	:	0.98	1.40	1.30	1.30
Indonesia	:	0.95	1.05	1.20	:	1.00	1.05	1.04	1.04	:	0.95	1.10	1.25	1.25
Mexico	:	0.39	0.15	0.38	:	1.92	2.07	1.89	1.89	:	0.75	0.30	0.72	0.72
Paraguay	:	0.62	0.70	0.76	:	1.79	2.01	1.84	1.84	:	1.10	1.40	1.40	1.40
USSR	:	0.78	0.76	0.78	:	0.91	1.16	1.03	1.03	:	0.71	0.88	0.80	0.80
Others	:	2.49	2.61	2.77	:	1.77	1.78	1.81	1.81	:	4.41	4.65	5.02	5.02
	:				:					:				
COTTONSEED	:				:					:				
-----	:				:					:				
World	:	31.45	33.93	32.81	:	0.99	0.95	0.94	0.94	:	31.14	32.28	30.95	30.85
	:				:					:				
United States	:	4.06	4.83	3.86	:	1.29	1.14	1.08	1.12	:	5.23	5.50	4.19	4.34
	:				:					:				
Total Foreign	:	27.39	29.09	28.95	:	0.95	0.92	0.92	0.92	:	25.90	26.78	26.76	26.51
China	:	4.84	5.53	5.20	:	1.49	1.28	1.40	1.38	:	7.22	7.07	7.40	7.20
India	:	6.47	7.40	7.70	:	0.48	0.48	0.47	0.47	:	3.09	3.56	3.65	3.65
Pakistan	:	2.57	2.50	2.60	:	1.15	1.16	1.14	1.14	:	2.95	2.90	2.97	2.97
USSR	:	3.53	3.45	3.30	:	1.27	1.45	1.39	1.39	:	4.49	5.02	4.58	4.58
Others	:	9.98	10.21	10.15	:	0.82	0.81	0.80	0.80	:	8.17	8.23	8.17	8.11
	:				:					:				
PEANUTS	:				:					:				
-----	:				:					:				
World	:	18.13	19.19	19.08	:	1.12	1.18	1.20	1.20	:	20.34	22.66	22.88	22.84
	:				:					:				
United States	:	0.63	0.66	0.67	:	2.62	2.74	3.07	3.01	:	1.64	1.81	2.05	2.01
	:				:					:				
Total Foreign	:	17.51	18.54	18.41	:	1.07	1.13	1.13	1.13	:	18.70	20.85	20.83	20.83
Brazil	:	0.10	0.09	0.12	:	1.67	1.56	1.57	1.57	:	0.17	0.14	0.18	0.18
China	:	3.02	2.98	3.05	:	2.04	1.91	2.03	2.03	:	6.17	5.69	6.20	6.20
India	:	6.74	7.80	7.60	:	0.79	1.06	0.99	0.99	:	5.30	8.30	7.50	7.50
Senegal	:	0.85	0.90	0.86	:	1.10	0.76	0.95	0.95	:	0.93	0.69	0.82	0.82
South Africa	:	0.15	0.19	0.19	:	1.33	1.24	1.24	1.24	:	0.20	0.23	0.23	0.23
Sudan	:	0.58	0.58	0.55	:	0.76	0.78	0.73	0.73	:	0.44	0.45	0.40	0.40
Others	:	6.07	6.01	6.05	:	0.90	0.89	0.91	0.91	:	5.49	5.35	5.50	5.50

CONTINUED



TABLE 6 (Continued)  
Oilseeds Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel. Proj.			Prel. 1989/90 Proj.				Prel. 1989/90 Proj.			
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
	---Million Hectares---			---Metric Tons Per Hectare---				---Million Metric Tons---			
SUNFLOWERSEED											
-----											
World	15.18	15.33	16.23	1.35	1.33	1.32	1.32	20.57	20.40	21.15	21.50
United States	0.72	0.81	0.72	1.65	1.04	1.39	1.32	1.18	0.85	1.00	0.95
Total Foreign	14.47	14.52	15.51	1.34	1.35	1.31	1.32	19.38	19.55	20.15	20.55
Argentina	2.06	2.20	2.80	1.36	1.32	1.35	1.43	2.80	2.90	3.50	4.00
China	0.89	0.94	0.94	1.40	1.43	1.45	1.45	1.24	1.34	1.36	1.36
EC-12	2.21	2.07	2.06	1.79	1.89	1.49	1.46	3.95	3.90	3.10	3.00
East Europe	1.38	1.31	1.35	1.73	1.64	1.80	1.80	2.39	2.15	2.43	2.43
USSR	4.16	4.28	4.30	1.46	1.44	1.47	1.47	6.08	6.16	6.30	6.30
Others	3.78	3.72	4.06	0.78	0.83	0.85	0.85	2.93	3.11	3.46	3.46
RAPESEED											
-----											
World	16.69	17.89	17.09	1.39	1.26	1.28	1.26	23.23	22.51	21.86	21.52
Total Foreign	16.69	17.89	17.09	1.39	1.26	1.28	1.26	23.23	22.51	21.86	21.52
Canada	2.67	3.67	2.93	1.44	1.17	1.25	1.16	3.85	4.31	3.70	3.40
China	5.27	4.94	4.90	1.25	1.02	1.16	1.16	6.61	5.04	5.70	5.70
EC-12	1.86	1.84	1.61	3.20	2.81	2.94	2.94	5.95	5.18	4.74	4.74
East Europe	0.92	0.88	0.99	2.35	2.49	2.46	2.42	2.17	2.19	2.44	2.40
India	4.51	4.90	4.80	0.72	0.86	0.73	0.73	3.24	4.20	3.50	3.50
Others	1.46	1.66	1.86	0.97	0.95	0.96	0.96	1.41	1.58	1.78	1.78
FLAXSEED											
-----											
World	4.02	3.86	4.04	0.56	0.44	0.53	0.50	2.26	1.70	2.14	2.00
United States	0.19	0.09	0.09	1.01	0.45	0.88	0.88	0.19	0.04	0.08	0.08
Total Foreign	3.83	3.77	3.95	0.54	0.44	0.52	0.49	2.07	1.66	2.06	1.92
Argentina	0.69	0.55	0.60	0.80	0.82	0.82	0.82	0.55	0.45	0.49	0.49
Canada	0.59	0.50	0.64	1.23	0.74	1.15	0.95	0.73	0.37	0.75	0.61
India	1.15	1.35	1.25	0.32	0.30	0.29	0.29	0.37	0.40	0.36	0.36
USSR	1.07	1.04	1.10	0.21	0.21	0.20	0.20	0.23	0.22	0.23	0.23
Others	0.33	0.33	0.36	0.59	0.65	0.66	0.66	0.20	0.22	0.24	0.24
MAJOR OILSEEDS TOTAL	139.63	145.80	146.75	1.44	1.33	1.41	1.40	200.88	194.22	206.89	205.60
COPRA	--	--	--	--	--	--	--	4.32	4.52	4.70	4.70
PALM KERNEL	--	--	--	--	--	--	--	2.69	2.94	3.08	3.08
TOTAL OILSEEDS	--	--	--	--	--	--	--	207.89	201.68	214.68	213.38
PALM OIL *	--	--	--	--	--	--	--	8.39	9.29	9.87	9.87



TABLE 7

## Cotton Area, Yield, and Production: World and Selected Countries and Regions

Country/Region	---Area---			---Yield---				---Production---			
	Prel.	Proj.		Prel.	1989/90	Proj.		Prel.	1989/90	Proj.	
	1987/88	1988/89	1989/90	1987/88	1988/89	Aug.	Sept.	1987/88	1988/89	Aug.	Sept.
	---Million Hectares---			---Kilograms Per Hectare---				---Million 480-Pound Bales---			
World	31.1	34.0	32.9	566	538	532	534	80.8	84.0	80.6	80.8
United States	4.1	4.8	3.9	791	694	667	692	14.8	15.4	11.8	12.3
Total Foreign	27.0	29.2	29.1	532	512	514	513	66.1	68.6	68.8	68.5
Maj. Foreign Exporters	12.8	13.5	13.1	764	750	763	762	45.0	46.4	46.1	45.7
Australia	0.2	0.2	0.2	1212	1451	1325	1325	1.3	1.2	1.4	1.4
Central America 1/	0.1	0.1	0.1	814	802	922	922	0.4	0.4	0.4	0.4
China	4.8	5.5	5.2	876	751	822	816	19.5	19.1	20.0	19.5
Egypt	0.4	0.4	0.4	845	718	814	814	1.6	1.4	1.6	1.6
Mexico	0.2	0.3	0.2	956	1178	974	974	1.0	1.4	0.9	0.9
Pakistan	2.6	2.5	2.6	573	578	569	578	6.8	6.6	6.8	6.9
Sudan	0.3	0.3	0.3	416	462	448	448	0.6	0.7	0.7	0.7
Turkey	0.6	0.7	0.7	916	919	919	919	2.5	3.0	2.9	2.9
USSR	3.5	3.4	3.3	700	799	759	759	11.3	12.6	11.5	11.5
Major Importers 2/	0.3	0.4	0.4	834	848	909	847	1.2	1.7	1.6	1.4
Other Foreign	13.9	15.3	15.6	310	293	294	297	19.8	20.5	21.0	21.3
Argentina	0.5	0.5	0.5	547	361	385	385	1.3	0.8	0.9	0.9
Brazil	2.2	2.3	2.4	355	307	321	336	3.5	3.3	3.5	3.7
India	6.5	7.4	7.7	239	241	236	238	7.1	8.2	8.4	8.4
Syria	0.1	0.2	0.2	915	672	794	794	0.5	0.5	0.6	0.6
Others	4.6	4.9	4.8	346	344	345	345	7.3	7.7	7.6	7.6

1/ Nicaragua, Guatemala, El Salvador, Honduras, and Costa Rica.

2/ Western Europe, Eastern Europe, Japan, Hong Kong, Republic of Korea, and Taiwan.

SEPTEMBER 1989

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA



TABLE 8

The table below presents a 8-year record of the difference between the September projections and the final estimates. Using world wheat production as an example, changes between September projections and the final estimates have averaged 11.9 million tons (2.4 percent) and ranged from -30.7 to 6.8 million tons. The September projection has been below the final 4 times and above the final 4 times.

## RELIABILITY OF PRODUCTION PROJECTIONS

COMMODITY AND REGION	PROJECTION AND FINAL ESTIMATES, 1981/82 – 1988/89 1/					
	Difference		Lowest	Highest	Below Final	Above Final
	Average	Average	Difference			
	Percent	--- <i>Million Metric Tons</i> ---				Number of Years 2/
<i>WHEAT</i>						
World	2.4	11.9	–30.7	6.8	4	4
U.S.	0.8	0.5	–1.2	0.8	5	3
Foreign	2.8	12.1	–30.9	7.5	4	4
<i>COARSE GRAINS 3/</i>						
World	1.3	9.9	–22.6	11.3	7	1
U.S.	2.9	5.6	–12.8	6.1	6	2
Foreign	1.5	8.3	–18.9	9.1	4	4
<i>RICE (Milled)</i>						
World	2.8	8.6	–24.1	3.4	7	1
U.S.	4.6	0.2	–0.3	0.3	5	3
Foreign	2.9	8.6	–24.4	3.6	7	1
<i>SOYBEANS</i>						
World	2.8	2.5	–4.4	4.7	4	4
U.S.	4.2	2.1	–2.7	4.6	3	5
Foreign	5.1	2.1	–3.2	2.3	4	4
			--- <i>Million 480-lb. Bales</i> ---			
<i>COTTON</i>						
World	3.7	2.9	–10.9	4.5	5	3
U.S.	4.9	0.6	–1.9	0.8	4	3
Foreign	3.7	2.5	–11.2	3.7	5	3
UNITED STATES			----- <i>Million Bushels</i> -----			
<i>CORN</i>	3.2	201	–459	224	5	3
<i>SORGHUM</i>	3.6	30	–69	26	5	3
<i>BARLEY</i>	1.9	10	–12	24	4	4
<i>OATS</i>	3.1	12	–18	27	3	4

1/ The final estimate for 1981/82-1987/88 is defined as the November estimate following the marketing year and for 1988/89 last month's estimate.

2/ May not total eight if projection was the same as the final.

3/ Includes corn, sorghum, barley, oats, rye, millet, and mixed grain.

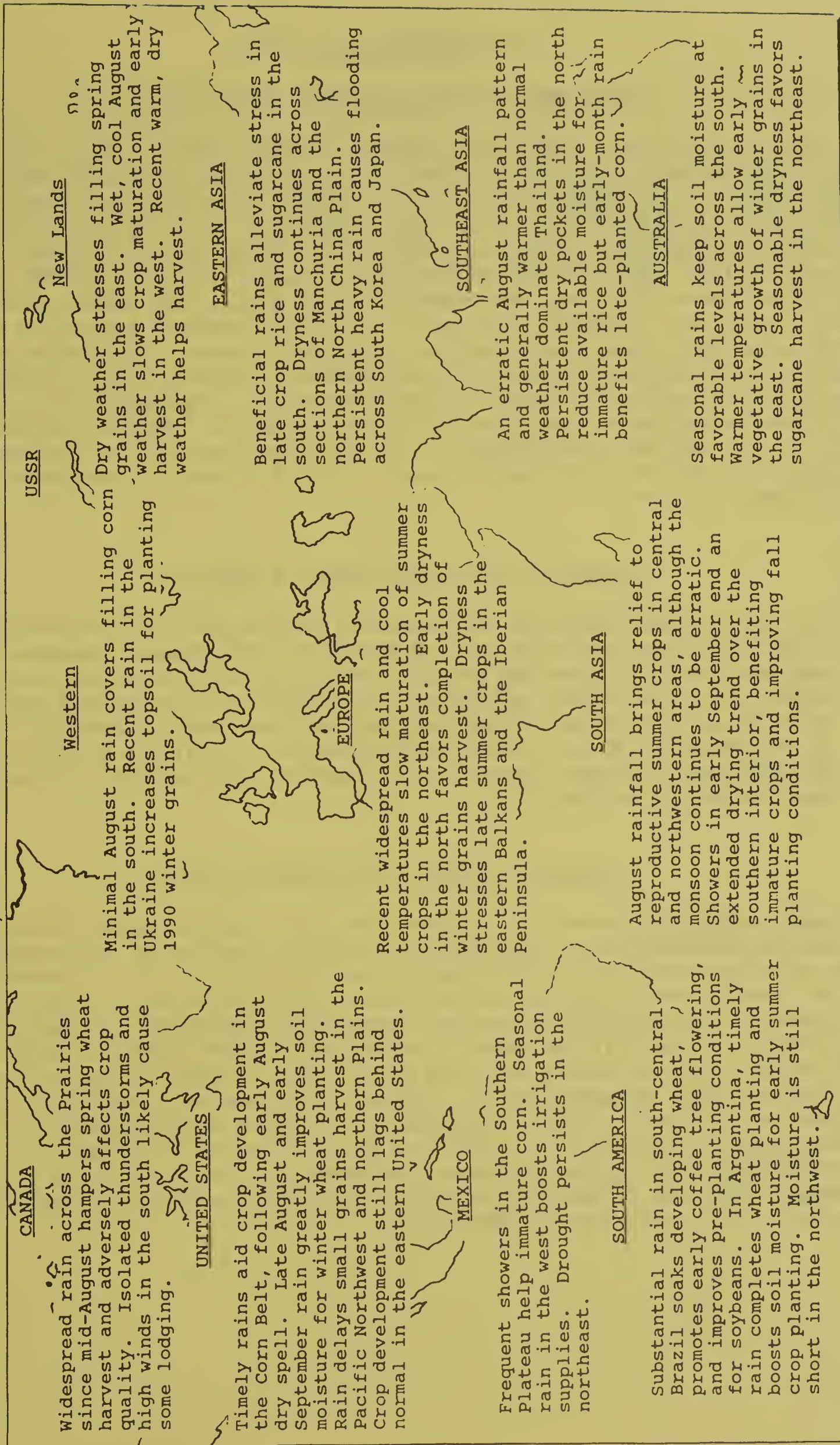


# WORLD AGRICULTURAL WEATHER HIGHLIGHTS

September 12, 1989

Date

NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY



(More details are available in the Weekly Weather and Crop Bulletin. Subscription information may be obtained by calling (202) 447-7917).



## WEATHER BRIEFS

### RAINS BENEFIT SOUTH AMERICAN CROP REGIONS

The region from eastern Argentina extending northeastward to south-central Brazil experienced a seasonable increase of early spring rainfall during August and early September. This rainfall eased chronically dry conditions in Uruguay and the southern states of Brazil which had persisted since the 1988/89 summer drought. Early September rainfall has been heavy over portions of the Brazilian states of Rio Grande do Sul, Santa Catarina, and Parana. While these heavy rains may have damaged winter grains and caused localized flooding, the rain appeared to greatly improve soil moisture reserves for the coming main summer crop season and for rangeland. Recent rains also continued to benefit most winter crop areas of La Pampa and Buenos Aires in Argentina, which had received timely winter rainfall since May. Seasonably dry conditions prevailed in central and northern Argentina. Central Argentina shared in the 1988/89 summer drought, and will need abundant spring rains to recharge soil moisture and timely summer rainfall to carry crops through the coming summer season.

### CONTINUED FAVORABLE WEATHER IN AUSTRALIA

Near- to above-normal rainfall and generally near-normal temperatures have persisted over winter grain regions of Australia this season. Somewhat wet and cool weather during seeding probably reduced planted area and delayed development of winter wheat and barley, especially in Victoria and southern New South Wales. Conditions since seeding have been mostly favorable for vegetative growth of winter grains and rangelands. Satellite imagery analysis through September 1 showed vigorous winter grains and rangelands across the southern reaches of Australia.

### INCREASED RAINFALL IN NORTHWEST INDIA

Monsoonal rainfall increased in northwestern India during August following limited rainfall earlier in the season, primarily benefiting the coarse grain areas of Rajasthan. Seasonably moderate amounts of rain fell in western Madhya Pradesh, western Uttar Pradesh, and eastern Rajasthan during middle and late August. While accumulations were generally seasonable for this period, these rains came late in the monsoon season and did not appear to make up for below normal rainfall during July and early August. Early September weather data and satellite imagery analysis indicated dry weather prevailed across Pakistan and northwest India, suggesting the monsoon had ended ahead of normal in this region. Normally, the southwest monsoon begins to retreat from northwest India during mid-September, retreating to southeast India by November. This year's monsoon, while far from being a failure, appears to be inferior to the near optimal 1988 monsoon.



## DRYNESS IN SOUTHERN EUROPE

Irrigation reserves for summer crops and orchards appeared to be very limited across parts of southern Europe due to below-normal precipitation this past winter. Parts of southern Spain, central and southern Italy, and the lower Balkans reported light but near- to above-normal rain during the course of the summer. Summer rainfall in these areas is normally negligible. Unseasonable severe thunderstorms in eastern Spain eased this dryness in early September. The rain appeared to come too late for most of the current season's crops in Spain but should help build soil moisture and reservoir reserves for next season.

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## PRODUCTION BRIEFS

### CHINA: 1989 FRUIT SITUATION

Preliminary reports out of China point to bumper 1989 fruit harvests. Combined production of the five major fruits--apples, pears, oranges, bananas, and pineapple--is expected to top 9.69 million tons, 17 percent more than last season. This high production volume is expected to bring down, or, at the very least, stabilize prices below the high levels commanded a year ago.

The 1989 apple harvest in the five major producing provinces of Shandong, Liaoning, Hebei, Henan, and Shanxi is currently projected at 3.59 million tons, up 12 percent from last year's volume. The increase reflects favorable weather conditions and additional young trees reaching the bearing stage. Pear production in Hebei, Shandong, and Anhui provinces is expected to reach 1.43 million tons.

Higher prices for oranges during the past several years has stimulated plantings of new groves throughout the seven major growing provinces of Sichuan, Hunan, Zhejiang, Jiangxi, Hubei, Guangdong, and the autonomous region of Guangxi Zhuang. This increase in bearing tree numbers, coupled with updated management techniques, is expected to boost China's 1989 production of oranges to 3.18 million tons, up 47 percent from last year.

Tropical fruits are not expected to fare as well due to plant diseases and insect infestations. Although preliminary estimates are not currently available, output of bananas and pineapple in the leading production regions of Guangdong and Guangxi could be down anywhere from 6 to 16 percent from last year.

### BULGARIA: 1989 ORIENTAL TOBACCO CROP PROSPECTS REDUCED

The 1989 oriental tobacco crop in Bulgaria is now projected at 95,000 tons compared to 105,000 tons forecast earlier. Large numbers of ethnic Turkish farmers have emigrated from Bulgaria to Turkey and the resulting labor shortage is expected to disrupt the harvest.

### JAPAN: STORM HURTS PROSPECTIVE WINTER ONION HARVEST

During the last week of August, tropical storm Roger crossed northern Japan, dumping 2 to 4 inches of rain on the island of Hokkaido, a major storage-onion producing region. Since it hit in the middle of the normal onion harvest period, the excessive rain undoubtedly caused some harvesting losses but, thus far, no quantitative estimates are available. Prior to the storm, Japan's 1989 onion production was expected to total 1.274 million tons, 7 percent above 1988, according to the first official estimate by the Ministry of Agriculture, Fisheries, and Forestry. Production on Hokkaido, which grows most of the onions for winter use, was estimated at 546,000 tons, up 8 percent. Favorable prices at the start of the season lead to a 5-percent increase in area planted, while favorable growing conditions during June and July appeared to have offset the impact of a cold spring. Japan imported 101,000 tons of onions in 1988/89 (July-June) of which about half came from the United States.



According to the U.S. agricultural counselor in Brussels (USEC), the EC management committee responsible for oilseeds and pulses has announced that the target price for rapeseed in the EC-10 countries (excluding Spain and Portugal) will rise about 5 percent from last year's level to 436.2 ECU per ton. The adjustment is based on a 1989 crop estimate of 4.9 million tons and a revised 1988 estimate of 5.2 million tons. According to the budget stabilizer formula, prices are to be reduced one-half of one percent from the institutional price of 450.2 ECU per ton for each percentage point by which production exceeds the maximum guaranteed quantity (MGQ) of 4.5 million tons. After accounting for the adjustment in last year's estimate, the 1989/90 target price was reduced by 3.1 percent from the institutional price. Last year, the cut was 7.6 percent.

The target price for feed peas and beans increased marginally from last year based on a 1989 crop estimate of 4.07 million tons and a revised estimate of 4.28 million tons for 1988. The adjustment formula is the same as for oilseeds but is based on an MGQ of 3.5 million tons. This year's adjusted target price will be 269 ECU per ton.

EGYPT: WHEAT PRODUCTION CONTINUES TO INCREASE

The introduction of new high-yielding varieties has been the major factor contributing to an increase of over 50 percent in Egyptian wheat production since 1986/87, according to the U.S. agricultural counselor in Cairo. Three improved varieties (Sakha 8, Sakha 61, and Giza 157) now account for about 60 percent of plantings in the old agricultural lands within the Nile delta and valley, and a further significant increase is expected for the 1989/90 winter season. The shift to these varieties is attributed largely to a change in the relative values of grain and wheat straw in local markets. From 1984 to 1987, wheat prices rose by 77 percent while wheat straw prices rose only 10 percent, making the shorter-strawed, high-yielding wheat varieties more profitable than traditional wheats. Other factors that have contributed to the increased yields are improved certification of seed, increased use of mechanical threshers, and favorable weather.

WEST GERMANY: AID FOR FARMERS APPROVED

The U.S. agricultural counselor in Bonn reports that both houses of the West German parliament have approved a law implementing a farm aid program. The primary aim of the law is to compensate farmers for income losses associated with the reduction in German Monetary Compensatory Amounts (a levy placed on agricultural imports from other EC countries) as of January 1, 1989. The law fulfills the requirements of the EC Council of Ministers to convert the DM1.1 billion annual production-based subsidy into an acreage-based subsidy. As a result, the law will fulfill a secondary goal of conveying a large portion of the subsidy to family farms which are generally less efficient than their larger counterparts. Practically all German farmers are eligible to participate; of the total 665,000 farms in Germany, only 9,000 will be excluded from the benefits of the law based on size. However, certain constraints have been implemented to ensure maximum benefits for small farms. For example, compensation payments for 1989 are DM90 per hectare, with a minimum of DM1,000 and a maximum of DM8,000 per farm unit. In addition, limitations are set on the amount of livestock kept on-farm. Total payments over the next four years are expected to reach DM4.4 billion, or about US\$2.3 billion.



#### FRANCE: FEED PULSE PRODUCTION HURT BY DROUGHT

According to the U.S. agricultural counselor in Paris, production of feed pulses will increase only marginally from last year despite a 13-percent increase in planted area. The reduction in average yields is attributed to dry weather in southern and central France, where about a quarter of the crop is grown. The following table provides a breakout of production estimates by type:

	1987		1988		1989	
	Area	Production	Area	Production	Area	Production
----- 1,000 hectares / 1,000 metric tons -----						
Peas	414	1,576	473	2,379	543	2,415
Beans	33	101	29	125	23	69
Sweet Lupines	2	7	2	7	3	8
TOTAL	449	1,684	504	2,511	569	2,492

#### CHILE: PULSE AND LENTIL PRODUCTION FALLS

Recently released official data from Chile show smaller harvested area and production for beans, lentils, and garbanzos. Production of beans for 1989 is now reported at 73,000 tons or 27 percent below earlier figures. In addition, production declines were reported for lentils and garbanzos currently at 8,000 and 4,000 tons, respectively, or about 50 percent less than earlier anticipated. Tight supplies have already been reflected in sharply higher domestic prices. Next season, production is not expected to improve significantly and supplies will continue to be limited.

#### SOUTH AFRICA: SUGAR PRODUCTION REVISED UPWARD

South African 1989/90 sugar production is estimated at 2.4 million tons, 200,000 more than earlier forecast, according to the U. S. agricultural attache in Pretoria. The outturn for 1988/89 was also revised upward to an estimated 2.47 million tons, 20 percent or 420,000 more than the previous estimate. The quality of the 1988/89 cane crop was 5 percent better than the previous season in terms of sugar yield per ton of raw material processed. The revisions are based on a report by the South African Sugar Association. Exports are now estimated at 1 million tons for 1988/89 (300,000 tons or 43 percent above the previous estimate) and 900,00 tons for 1989/90 (200,000 tons or 22 percent above previous forecast.)



## FEATURE COMMODITY ARTICLES

### FOREST PRODUCTS SITUATION IN ASIA

The increasing costs associated with log production throughout Asia is spurring forestry industries to produce higher value wood products which require more capital and labor intensive processing. Restraints on log exports have boosted sawmill production, not only for lumber but also for an even more specialized product mix including flooring, moldings, specialty plywoods, and various types of paneling. Cost-saving measures now include more efficient use of waste products to produce value-added products such as fiberboards and particleboard.

CHINA: Efforts continue to improve and expand China's forestry sector beyond the current 125 million hectares and 9 billion cubic meters (CUM) of inventory, of which only about 2.3 billion is considered exploitable because of access problems. The major timber area is in the northeast (Heilongjiang, Jilin, Inner Mongolia) comprised of mainly larch, white birch, Korean Pine, oak, and spruce. Other major timber areas include the provinces of Fujian, Guangdong, Guangxi, Jiangxi, Yunnan, Hunan, and Sichuan. Forest development is hampered by strong domestic demand for wood products, limited control over illegal cutting, and insufficient investment in the forest sector. Despite Government efforts to protect forestry resources, abuses of forestry laws and cutting guidelines abound. High wood prices have encouraged illegal logging and have added to the problems facing those responsible for improving forest area. New controls on timber inspections and marketings have been announced this year to protect forest areas and thwart indiscriminate cutting. Estimates place removals at 100 million CUM beyond growth. In an effort to balance growth and removals, China has embarked on a program of reforestation, including the planting of fast-growing trees, reduced annual cuts in official forestry areas, and better forest management techniques. These efforts are hampered somewhat by heavy taxes designed to keep afforestation from cutting into grain area.

Softwoods comprise approximately 58 percent of the Chinese forest. This is down from about 70 percent softwoods 25 years ago because of a preference for, and overcutting of, softwoods. Although this highgrading has left China's forests with a low quality, mixed-hardwood composition, softwood composition is expected to increase significantly in the long-term since the bulk of new plantings are larch, red pine, poplar, and fir. The current plan calls for reforesting by the year 2000 another 30 million hectares, including 6.3 million hectares of fast-growing species to insure better quality and quicker returns on investment. The emphasis on reforestation to boost wood production has recently begun a moderate shift toward forest protection, prevention of soil erosion, and protection of wildlife habitat and water resources. Despite the priority placed on forestry, forest land that is inappropriate for agriculture has been and continues to be cleared and planted with crops, mainly grains. Pressure to produce sufficient foodstuffs encourages this type of policy. Taxes levied on forestry in these marginal areas are expected to affect some farmers who have invested in tree farms, further lowering the availability of wood for harvest. At the same time, demand for wood products remains strong.



China's 1989 timber harvest is currently forecast to return to a more normal level of 126 million cubic meters (CUM), down 1 million CUM from last year's cut. The sharp increase during 1988 was due, in part, to extensive salvage cutting after the Daxinganling fire in northeastern China, as well as overcutting outside the state plan. Despite the projected reduction in logging during 1989, there may still be a surplus of logs during 1989 due to an expected construction cutback. China continues to develop the fiberboard and particleboard industries in an effort to use all available wood more efficiently.

Lumber production is limited by milling capacity estimated to be around 30 million CUM of sawnwood per year. The Ministry of Agriculture operates approximately 155 sawmills; provincial and locally owned sawmills total another 500 to 700 mills. Softwood lumber accounts for 60 to 65 percent of the total lumber sawn in China. Because of the Government's policy to eliminate nonessential wood usage, less emphasis is being placed on sawnwood in favor of value-added products. There is, however, an ongoing effort to upgrade facilities or eliminate outdated saw mills that use resources inefficiently. China continues to improve plywood production, although the emphasis is on upgrading quality rather than increasing production capacity. Sawmills, in combination with particleboard and fiberboard mills, are generally viewed as the most profitable way to utilize resources, particularly when these vertically integrated mills are located near the resource base. For now, most direct investment is in manufacturing facilities for panel products because this represents the best opportunity to not only conserve limited wood resources but develop higher valued products. The target is to increase production of panel products 15 percent annually. Medium density fiberboard and particleboard are the leading board products. These products are primarily produced from wood residues rather than wood chipped explicitly for that purpose. The Ministry of Forestry estimates the equivalent of 13 million CUM of wood have been saved by introducing technologies that use wood waste. Currently, only 10 percent of the trim from fellings and 30 percent of the waste from processing are utilized. However, output of particleboard reportedly has been limited by shortages of both wood and the resins needed in the production process. The panel product industry has plans to develop facilities for producing glues in order to avoid this problem in the future. Several manufacturing production lines have been imported to ensure that high quality panel products are produced.

TABLE 9

	CHINA: FORESTRY PRODUCTION (1,000 CUBIC METERS)		
	<u>1987</u>	<u>1988</u>	<u>1989 1/</u>
HARVEST	133,000	128,000	126,000
Softwood Logs	82,400	79,360	75,600
Temperate Hardwood Logs	50,540	48,640	50,400
Softwood Lumber	22,500	20,780	20,100
Temperate Hardwood Lumber	10,100	9,450	9,100
Railroad Ties/Sleepers	1,000	1,100	1,300
Softwood Plywood	506	683	724
Temperate Hardwood Plywood	127	171	180
Fiberboard	1,350	1,400	1,610
Particleboard	440	450	460

1/ Preliminary



JAPAN: Japan's roundwood production for 1989 is forecast at 31 million CUM, amounting to approximately 46 percent of its total estimated supply for the year. Almost all of Japan's standing timber consists of trees which were planted since 1945. Most of these trees are cedar or cypress, meaning that 40 to 50 years of growth is needed before harvest. Thus, most of Japan's forest is in a growth period incurring costs for thinning and other cultivation procedures, but little return. However, in about 10 years, these forests will be mature trees ready for selection and cutting and the Japanese forestry industry should begin to prosper. To remain competitive, the industry recognizes there must be more mechanization of logging operations, new technological developments to improve wood processing, better utilization of existing technology, lower production costs, and improvements in the infrastructure.

Given Japan's diminishing supply of domestically produced temperate hardwoods, softwood logs now comprise the bulk of the annual harvest. The end product is primarily lumber for the construction industry. Production of softwood veneer and plywood continues to expand. The shortage of hardwood resources is most evident in the downturn in production of hardwood veneer and plywood in Hokkaido, where most of Japan's veneer plants and domestic hardwood stands are located. Currently, there are 43 plants that produce veneer, primarily for the Japanese furniture industry. The number of Japanese plywood mills has been declining at an average rate of 7 plants per year over the past decade. Currently, there are 112 plants that produce only plywood, 29 that manufacture plywood and secondary processed plywood, and 344 that produce only secondary processed plywood.

TABLE 10

JAPAN: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
HARVEST	30,892	30,930	31,000
Softwood Logs	17,244	17,386	17,500
Temperate Hardwood Logs	2,735	2,609	2,500
Poles,Piles,Posts,Pitprops	459	487	450
Lumber	29,763	29,639	28,800
Railroad Ties/Sleepers	47	59	55
Softwood Veneer	128	158	170
Temperate Hardwood Veneer	268	260	250
Tropical Hardwood Veneer	7,119	6,861	6,300
Softwood Plywood	148	188	195
Temperate Hardwood Plywood	258	276	280
Tropical Hardwood Plywood	6,936	6,827	6,300
Hardboard	160	161	155
Medium Density Fiberboard	181	214	230
Insulation Board	450	524	545
Particleboard	1,002	1,064	1,100

1/ Preliminary

PHILIPPINES: Philippine forest resource conditions are considered critical. Only about 5 million hectares of commercial stands remain. Of this, old growth forest comprise a little over 1 million hectares containing 33 percent of the estimated commercial timber stand volume of 956 million CUM. Reforestation rates of about 30,000 to 40,000 hectares per year are well below deforestation rates which reportedly run up to 210,000 hectares per year. The rapid rate of deforestation stems from the practice of "kaingin" (slash and burn farming), the conversion of forest lands to industrial and residential uses, and widespread illegal logging. Government logging concessions are introducing agroforestry concepts--such as cultivation of food and other cash crops under forest cover--to forest settlers in an attempt to halt further forest destruction through "kaingin".

Reforested area totaled 66,572 hectares in 1988, 67 percent more than the 39,811 hectares replanted in 1987 and a record volume for the decade. The Government has targeted 300,000 hectares for reforestation within the next three years. Fertilization and extensive pest and disease management is practiced only on industrial tree plantations (ITP's) and agroforestry farms occupying about 430,000 hectares. The leading wood species cultivated on the ITP's include falcatta, bagras (eucalyptus deglupta), acacia mangium, and Caribbean pine. These species yield well and have a relatively short maturation period. Reported yields in the major ITP's are about 200 CUM/HA on an 8 to 10 year cycle. Joint Government/private sector research and development activities are being carried out in the areas of species selection, genetically improved species, pest and disease management, and optimum tree density in an effort to improve yields.

Production for 1989 is expected to rebound after the downturn in 1988 caused by the Government's conservation policies and the suspension of numerous timber license agreements. Fueled by the ongoing construction boom, strong domestic demand, and high producer prices, the outlook for 1989 points toward production increases for tropical hardwood logs, lumber, veneer, and plywood. No expansion in sawmilling capacity is anticipated although mills are expected to retool and modernize into downstream processing such as kiln drying facilities and value-added lumber finishing.

In order to achieve the concurrent goals of minimizing further destruction and improving the dwindling forest resource base, the Government is planning or has implemented the following policy measures:

1. Cut the number of timber license agreements from 154 in 1987 to 76 in 1988 for violation of forestry laws.
2. Banned logging in 5 provinces. Several proposals are under consideration for additional moratoriums.
3. Planned reforestation of 100,000 hectares per year using local and foreign financing.
4. Banned rough lumber exports as of July 1, 1989; banned kiln-dried S4S lumber as of December 31, 1989; some exceptions.
5. Proposed limitation on the total annual allowable cut from 7 million CUM to 4 million CUM.
6. Proposed increase in forest rate charges approximating the market value of the timber harvest rather than the current flat rate based on the volume harvested.
7. Encouraged integration of timber production with rice, corn, vegetable, and livestock production.



In line with the Government's goal to increase exports of value-added wood products, it appears likely that there will be a major retooling and modernization of mills within the next few years.

TABLE 11

PHILIPPINES: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
HARVEST	4,253	3,893	4,000
Tropical Hardwood Logs	3,412	3,185	3,200
Tropical Hardwood Lumber	1,233	1,033	1,040
Hardwood Veneer	75	85	90
Tropical Hardwood Plywood	517	415	500

1/ Preliminary

TAIWAN: Effective July 1988, the Taiwan Government set an annual production limit of 450,000 CUM and stopped plantation logging of domestic natural softwoods (about 45 percent of total domestic supplies of softwood, including Taiwan cypress, spruce, fir, and hemlock). Current assessments place 1989 softwood production down 50 percent from last year as authorities expand conservation of forest resources and experience labor shortages. Rough terrain and small scale operations make local production less price competitive than imported timber. The stringent regulation of domestic timber has also led to increasing demand for imported logs. Dwindling supplies of domestic softwood logs has had a domino effect, depressing domestic softwood lumber production 30 percent over the past year and pushing up domestic processing costs.

The cutback in logging of softwood species boosted fellings of temperate hardwoods. The 9-percent production increase forecast during 1989 for temperate hardwood lumber reflects the increased availability of raw materials and the higher prices paid to producers. The increase in production of tropical hardwood lumber from imported logs in 1988 is not expected to be repeated this year due to restrictions on tropical log exports by Taiwan's major suppliers. This is expected to accelerate the shift to substitutes such as temperate hardwoods, particleboard, and medium density fiberboard. The appreciation of the New Taiwan dollar and competition from Indonesian plywood is forcing Taiwan's plywood industry to seek ways to survive. Ongoing efforts include production of high-value end products by reprocessing inexpensive, imported Indonesian plywood into fancy laminated plywood for export and furniture use; development of European markets through promotional activities; and expansion of product variety by introducing more softwood species. There are currently 10 particleboard plants operating in Taiwan. Domestic production is on the decline due to a scarcity of raw materials (mainly low-quality domestic lumber), quality control problems, and the availability of cheap imports. Given the labor shortage, one key factor keeping the industry viable is that high production costs in the local wood processing sector make particleboard an attractive and acceptable substitute for lumber as a base for veneer.

TABLE 12

TAIWAN: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> 1/
HARVEST	423	310	270
Softwood Lumber	57	50	35
Temperate Hardwood Lumber	181	202	220
Tropical Hardwood Lumber	813	890	800
Tropical/Temperate Hardwood Veneer	1,233	1,110	1,000
Tropical/Temperate Hardwood Plywood	889	895	900
Particleboard	125	120	110

1/ Preliminary

KOREA: By the end of 1988, Korea's total forest land had declined to about 6.5 million hectares, accounting for 66 percent of total land area. Commercial forests are concentrated in the eastern provinces of Kangwon and Kyungbuk. The annual timber cut is limited to 1.3 to 1.5 million CUM for the next several years since most standing trees are less than 30 years of age and many species are not grown for timber utilization. Korea's reforestation program has been very successful in the mountain regions devastated during the Korean War. However, the emphasis of this reforestation program has been on erosion control and scenery beautification, not the production of commercial timber species. In addition, most of Korea's mountains have shallow rocky soil, not favorable for timber trees. The Forestry Administration is projecting a domestic timber cut of 2 million CUM by the year 1995. Demand is forecast at 13 million CUM, a self-sufficiency rate of only 15 percent. Korea's current inventory is estimated at 205 million CUM of standing timber, 50 percent of which is softwoods, 22 percent hardwoods, and 28 percent mixed stands. Trees under 30 years of age account for 73 percent of the growing stock and only 3 percent of current stocks are over 60 years. The leading species are red pine, larch, and oak, accounting for 80 percent of total inventory. Also grown are white pine, ash, birch, basswood, paulownia, maple, and poplar.

Due to the limited availability of domestic timber for lumber production, most softwood lumber is produced from imported logs. Softwood lumber output continues to increase in response to the tight supply of tropical hardwood, rising import prices, and strong demand from the domestic and export markets. Overall lumber demand is expected to continue to grow in line with expansion of housing construction and related industries.

Korea's production capacity for plywood continues to decline. Rising log prices, a cutback in foreign log supplies, and low prices for imported plywood are expected to push production even lower in the years ahead.

Currently, one company produces all Korean supplies of medium density fiberboard (MDF). The annual production capacity of this company is approximately 60,000 CUM. Production for 1989 is forecast at capacity. Because of the strong demand for MDF as a substitute for particleboard and plywood, two additional companies reportedly are setting up production facilities. Commercial supplies could be available as soon as 1990. However, given the tight supply of hardwood chips caused by declining log imports, no significant increase in domestic production can be expected for several years.



TABLE 13

KOREA: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
HARVEST	1,388	1,250	1,380
Softwood Lumber	2,592	3,323	3,630
Temperate Hardwood Lumber	50	92	95
Tropical Hardwood Lumber	1,573	1,415	1,387
Tropical Hardwood Plywood	1,050	1,068	967
Medium-Density Fiberboard	40	55	60
Particleboard	191	203	235

1/ Preliminary

INDONESIA: Along with Malaysia, Indonesia is one of the world's leading commercial producers of tropical hardwoods. Forested area covers roughly 60 percent of the total land area of approximately 191 million hectares. The species mix includes commercial tropical hardwoods (meranti, teak, ramin, agathis) and increasing numbers of fast-growing softwoods (pine, eucalyptus). As in most tropical countries, deforestation is a matter of great concern. Indonesia reportedly has the highest deforestation rate in Southeast Asia--500,000 to 1 million hectares per annum. This is significantly higher than the rate of reforestation, currently estimated at about 2 million hectares over the past 10 years or an average of 200,000 hectares per year.

Despite declining log output, the forestry industry in Indonesia continues to show growth potential in the lumber and plywood sectors. Approximately 50 percent of the timber harvest is utilized by the sawmills; 44 percent by the plywood plants. The remaining logs are diverted directly to the furniture, building, and construction industries to augment the finished products received from sawmills and plywood plants. Only the larger sawmills have logging concessions, leaving the bulk of mills with chronic log shortages. There are an estimated 2,708 sawmills in Indonesia, with an installed capacity of about 14.7 million CUM. With lumber production for 1989 expected to rise 11 percent to 11,400 CUM, the sector is operating at 78 percent of capacity. The Government target is to expand lumber production to 14.4 million CUM by 1994, by limiting the timber cut, banning log exports, and lowering and/or eliminating export taxes on finished wood products.

Plywood plants are more vertically integrated and practically all plants have their own log concession. This has helped expand plywood production to a record 7.7 million CUM in 1988 and potentially 13 percent higher (8.7 million CUM) during 1989. Currently, there are 108 plywood plants with an installed capacity of 8.9 million CUM. Fifteen additional plants are expected to open during 1989. To meet the increased demand, several large, new logging concessions will be opened in East Kalimantan and Irian Jaya. The gains in both the sawmill and plywood sectors reflect the Government's efforts to diversify the industry's product mix.

TABLE 14

INDONESIA: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
Tropical Hardwood Logs	25,258	24,954	24,700
Tropical Hardwood Lumber	9,331	10,300	11,400
Tropical Hardwood Plywood	6,751	7,733	8,700
Hardboard	274	289	300

1/ Preliminary

MALAYSIA: The outlook for the Malaysian timber industry appears bright for 1989. Forecasted production of roundwood is up for the fourth consecutive year--a trend that is expected to continue for several years as export restrictions on log and lumber exports by neighboring producing countries boosts demand for the Malaysian product. Due to large-scale conversion for agriculture and urban development, total forest area in Malaysia has been reduced from 21.4 million hectares in 1980 to an estimated 19.3 million hectares in 1988. Of the total, 8.5 million hectares are located in Sarawak, 6.3 million hectares in Peninsular Malaysia and 4.5 million hectares in Sabah. The leading commercial species are meranti, kapur, keruing, and serungan, although rubberwood is becoming increasingly popular both domestically and for export. However, as the supply of traditional commercial species diminishes, future timber resources are being assured by the establishment of commercial forest estates planted with fast-growing species such as akasia, yemane, and batai that are expected to yield 210 CUM of sawlogs per hectare at the end of 15 to 20 years.

Malaysia's lumber output is expected to reach 6.90 million CUM in 1989, up from nearly 6.57 million CUM last year. Peninsular Malaysia normally accounts for approximately three-fourths of the annual total. There are 670 sawmills in Peninsular Malaysia but only 280 mills in all of East Malaysia (Sarawak and Sabah). Major constraints impeding the further development of East Malaysia's sawmilling industry include high log prices, high labor costs, the high cost of transporting logs to mills, and the lack of investment capital. Yet, given these constraints, the Government's emphasis remains on developing the sawmilling, plywood and veneer industries with the intention of restructuring these industries to diversify into downstream processing.

Production prospects for 1989 appear particularly favorable for the plywood industry. Production of plywood is expected to increase 8 percent in 1989 to 1.07 million CUM. Currently, there are 54 plywood/veneer mills in Malaysia--42 in Peninsular Malaysia, 7 in Sabah and 5 in Sarawak. The Government has already approved applications for 14 new plywood mills in Sarawak. These mills, with a projected capacity of 328,000 CUM, are expected to be operational by 1990. Annual output per mill may seem low, but Sarawak manufacturers plan to compete on the basis of product quality and reliability of delivery rather than on prices.



Particleboard production in Malaysia shows great promise.. Production has been trending upward for the past several years and is expected to reach a record 55,000 CUM during 1989. There are currently only 3 medium-sized particleboard plants in Malaysia. However, further expansion of this industry is being planned now that rubberwood--formerly used only for fuel--has become an acceptable raw material for the production of particleboard, blockboard and furniture.

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TABLE 15

MALAYSIA: FORESTRY PRODUCTION  
(1,000 CUBIC METERS)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
Roundwood	36,360	36,600	37,790
Tropical Hardwood Logs	36,149	36,220	37,400
Tropical Hardwood Lumber	6,008	6,566	6,900
Tropical Hardwood Plywood	884	993	1,070
Tropical Hardwood Veneer	312	377	380
Poles,Piles,Posts,Pitprops	210	380	390
Particleboard	48	50	55

1/ Preliminary

TABLE 16

ASIA: FOREST PRODUCTS SITUATION  
(1,000 Cubic Meters)

	CHINA	INDONESIA	JAPAN	KOREA, SOUTH	MALAYSIA	PHILIPPINES	TAIWAN	TOTAL
Industrial Roundwood 1/								
1987	133,000	25,260	20,438	1,388	36,359	3,466	423	220,334
1988	128,000	24,955	20,482	1,250	36,600	3,194	310	214,791
1989 September	126,000	24,701	20,450	1,380	37,790	3,230	270	213,821
Sawnwood 2/								
1987	32,600	9,361	29,810	4,079	6,059	1,233	1,051	84,193
1988	31,330	10,338	29,698	4,830	6,624	1,033	1,142	84,995
1989 September	30,500	11,445	28,855	5,112	6,960	1,040	1,055	84,967
Panel Products 3/								
1987	3,800	7,025	16,650	1,365	1,247	592	2,247	32,926
1988	4,113	8,022	16,533	1,339	1,380	500	2,125	34,012
1989 September	4,584	9,000	15,525	1,276	1,505	590	2,020	35,500

1/ Includes Softwood Logs, Temperate Hardwood Logs, Tropical Hardwood Logs, Poles, Piles, Posts, Pitprops. Does not include Pulpwood.

2/ Includes Softwood Lumber, Temperate Hardwood Lumber, Tropical Hardwood Lumber, Railroad Ties/Sleepers.

3/ Includes Softwood Veneer, Temperate Hardwood Veneer, Tropical Hardwood Veneer, Softwood Plywood, Temperate Hardwood Plywood, Tropical Hardwood Plywood, Hardboard, Medium Density Fiberboard, Insulation Board, Particleboard.

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Foreign Production Estimates Division, IAS/USDA



## SWEDEN FORESTRY SITUATION

Prospects appear favorable for another banner year for the Swedish forest industry. Sweden's timber harvest increased by just over 1 million cubic meters (CUM) between 1987 and 1988, and an additional increase of over 2 million CUM is anticipated during 1989. Tax relief measures for private forest owners, raw material price increases, and excellent logging conditions have had the desired effect and stimulated fellings. If the 1989 cut reaches the 70 million CUM forecast, it would be the largest annual harvest since 1974, when 76 million CUM were logged.

Forest area in Sweden is approximately 23.7 million hectares, or about 60 percent of total land area. The total inventory is currently estimated at 2.7 billion CUM, of which approximately 46 percent is spruce, 37 percent pine, 15 percent various hardwoods, and 2 percent dead trees. Based on improvements in quality, species selection, yields, and forest management, the National Board of Forestry is projecting that Sweden's total standing timber stock will reach 3.2 billion CUM by the year 2020 and 4.0 billion CUM by 2080.

As in Finland, overcapacity has limited returns to sawmillers. During the past 2 years, reductions in installed capacity have, to some extent, alleviated some of the profitability problems. Total sawmill capacity is now estimated at approximately 13 million CUM, down from 15 million in 1986. The 1989 production forecast for softwood lumber points to a 3-percent increase over last year and takes into account the increased profits millers expect to derive from lower overhead and higher capacity utilization.

Total plywood production for 1989 is forecast at 80,000 CUM, up 16 percent from last year. There are five plywood mills in Sweden, with a combined annual capacity of 110,000 CUM. The bulk of production is construction-grade plywood made from pine and spruce. A new hardwood plywood production facility will come on line in late 1989. Annual production is estimated at approximately 9,000 CUM of high-quality birch plywood for use in the furniture and joinery industries. Production of the 5,000 CUM projected for 1989 will require over 50 percent utilization of installed capacity.

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TABLE 17

SWEDEN: FOREST PRODUCTS  
(1,000 Cubic Meters)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
Harvest	66,300	67,400	70,000
Softwood logs	22,500	22,300	23,000
Temperate hardwood logs	756	666	690
Softwood lumber	11,278	11,031	11,400
Temperate Hardwood lumber	338	331	340
Railroad ties/sleepers	20	20	20
Softwood plywood	74	69	75
Temperate hardwood plywood	0	0	5
Hardboard	259	260	265
Insulation board	157	144	156
Particleboard	820	860	860

1/ Preliminary



## FINLAND FORESTRY SITUATION

Finland's forestry production prospects are expected to remain favorable following last season's strong showing. The 1989 harvest is currently estimated at 56 million cubic meters (CUM), down only 3 percent from a year ago, but 6 percent above 1987. The projected decline reflects concern over the government's new proposal for increased taxes on forest properties. In Finland, these taxes are based on forest area, not actual fellings. The uncertainty surrounding the proposed tax reform and the lack of a timely 1989/90 price agreement (last year's agreement expired on April 30, 1989) caused logging to more or less come to a standstill. A new price agreement was finally reached on July 6, 1989, which was too late for fellings to match the record volume cut during 1988.

Total forest area in Finland is approximately 20.1 million hectares, or 66 percent of the total land area. The resource base is currently estimated at 1,723 million CUM solid volume with bark, of which 45 percent is pine, 37 percent spruce, 15 percent birch, and 3 percent alder and aspen.

The Forest 2000 Program, implemented in 1986, outlines the areas for improved forest management. The program specifies greater usage of fertilizers, improved utilization of logging residues, and increased levels of planting and seeding. The Central Forestry Board is responsible for the supervision and inventory of forest resources. There are 19 District Forestry Boards actively assisting forest owners with advice on thinning and clearing. Government grants are available to forest owners for ditching and reforestation of cultivated land. The Forest 2000 Program calls for a gradual increase in forest area to be fertilized each year until the year 2000, and about 220,000 hectares of forest land are scheduled to have standardized fertilization programs in place by then also. To date, only about 90,000 hectares are being fertilized each year.

The delay in reaching a 1989/90 price agreement caused uncertainty surrounding potential sales and appears to have mildly dampened production prospects for both logs and lumber. Output of softwood logs is expected to drop to 19 million CUM, about 200,000 CUM below last year. Production of temperate hardwood logs, currently estimated at 1.9 CUM, is just marginally shy of the record volume harvested during 1988.

After four consecutive years of expansion, the softwood lumber industry shows signs of retraction. Production for 1989 is forecast at 7.6 million CUM, down from over 7.7 million a year ago. Thirteen Finnish sawmills permanently discontinued operations during 1988, mainly because of poor profit margins. Combined year-end mill capacity was 9.1 million CUM, but within the next 10-15 years annual production capacity is expected to decline to about 7 million CUM. Birch lumber is the only significant type of temperate hardwood lumber produced in Finland. Output has remained stable at 70,000 CUM for the past several years. Future growth is not anticipated in this sector given the limited demand for this product and the fact that most supplies of domestic birch logs are utilized by the veneer industry.

Expansion within Finland's forestry industry appears confined to the plywood and particleboard sectors. Production of temperate hardwood plywood during 1989 is forecast at 522,000 CUM--up 6 percent from last year--due to strong domestic and export demand by the construction industry. Particleboard production is expected to increase by 7 percent to 700,000 CUM. Competition from products such as plywood and gypsum board have forced the development of new types of particleboard products. These new products allow both the building and furniture industries more flexibility in terms of product mix, since industry requirements can now be satisfied by more than one product; i.e., particleboard, plywood, gypsum board, laminate combinations.

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TABLE 18

FINLAND: FORESTRY PRODUCTION  
(1,000 Cubic Meters)

	<u>1987</u>	<u>1988</u>	<u>1989</u> <u>1/</u>
HARVEST	53,000	58,000	56,000
Softwood Logs	17,238	19,201	19,000
Temperate Hardwood Logs	1,507	1,902	1,900
Softwood Lumber	7,460	7,720	7,600
Temperate Hardwood Lumber	70	70	70
Softwood Plywood	102	93	94
Temperate Hardwood Plywood	488	493	522
Particleboard	610	657	700

1/ Preliminary



## WORLD FILBERT PRODUCTION

World commercial filbert production for 1989/90 is expected to reach a new high of 645,300 tons (in-shell basis), exceeding last season's record harvest by 9 percent. Preliminary assessments indicate that Turkey, favored by excellent growing conditions, will again contribute over 70 percent to the world total with a record 1989/90 crop currently projected at 480,000 tons of very good quality nuts. Future growth, however, could be constrained by a recent government regulation limiting the areas in which filberts can be grown--the objective is to prevent surpluses and the resulting marketing difficulties as well as to free up land for other crops. Effective immediately, new filbert orchards can only be planted on mountainsides with specific elevations and slopes, and only with special permission. No new plantations can be established in valleys or near the coast. However, the Agricultural Bank of Turkey will continue to provide low interest planting loans to filbert producers.

Italy's 1989/90 filbert crop is forecast at 120,000 tons, 14 percent below last year's record volume, but an excellent outturn for an off-year in the biennial cycle complicated by early-season drought conditions. Filbert area has been declining over the past several years as many marginal orchards have been taken out of production. Thus far, uprootings have been limited primarily to Sicily, where yields per hectare are reportedly only one-fifth of the national average.

Spain's filbert producing areas were fortunate to escape the dry conditions prevalent throughout most of the country this season. Tarragona, which accounts annually for approximately 85-90 percent of Spain's filbert crop, experienced good spring rains that yielded abundant irrigation supplies. This contributed greatly to the 1989/90 harvest projection of 33,000 tons--a gain of 83 percent over last season. If finalized at this level, the 1989/90 crop will match the record volume harvested in 1974. Spain does not have a price support program for filberts. Direct government assistance to filbert producers is restricted to subsidization of diesel fuel and the European Community loan program for structural improvements i.e., primarily irrigation projects and orchard establishment.

U.S. filbert production for the 1989/90 season is currently forecast at 12,250 tons, 18 percent below last year and potentially the smallest harvest since 1984. Filbert trees, particularly the Barcelona variety, were adversely affected by a severe cold snap during the critical pollination stage. As a result, this year's nut set reportedly is lighter with a larger than normal number of blanks. However, nut sizes are significantly larger than a year ago.

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TABLE 19

FILBERTS: PRODUCTION IN SELECTED COUNTRIES  
(1,000 Metric Tons In-Shell Basis)

	1987/88	1988/89	1989/90 <u>1/</u>
Italy	90.0	140.0	120.0
Spain	32.0	18.0	33.0
Turkey	280.0	420.0	480.0
United States	19.8	15.0	12.3
Total	421.8	593.0	645.3

1/ Preliminary



## WORLD ALMOND PRODUCTION

The world's leading almond producers are expected to harvest a 1989/90 crop of 345,100 tons (shelled basis), 5 percent below last season. The downturn in production reflects the sharply reduced crop volume forecast for the United States, which is significant enough to offset the gains projected for all other countries combined.

Greek production of almonds is expected to decline 14 percent to 16,300 tons after last season's record crop. The reduction is a result of the normal biennial pattern, pre-bloom drought conditions, and a 15-percent drop in bearing tree numbers. Nut quality is reportedly better than last year with larger than average kernel sizes. In response to a new EC structural aids program, the Greek Government's target is to stabilize annual output at a consistent 13,500 tons, moderately below current production levels.

The structural aids program was implemented on September 1, 1989 to assist EC tree nut producers in the formation of producer organizations and to provide funds for quality improvements and crop marketability. Financed partially by EC and national funds, the measures are designed to strengthen EC tree nut industries by stabilizing production at levels high enough to satisfy domestic demand, improve product quality by replacing old trees, and raise farmers' incomes. The structural aids available will include storage and processing aids, aids for varietal improvements and aids for market promotion. No direct production aids are provided.

Favorable weather conditions are expected to boost Italy's 1989/90 almond crop to 20,000 tons, 43 percent greater than the volume harvested last season. Despite this year's increase, the long-term trend indicates a progressive reduction in output as aging orchards are uprooted and replanted with crops, such as vegetables, that yield higher returns. The newly implemented EC structural aid program also encompasses Italy's almond growers. However, given the on-going decline in the industry, it is difficult to assess the impact at this time. Now that Italy has become a net importer, strong competition from other producing countries is viewed as a major constraint to renewed development in this sector.

Almond production in Portugal is expected to recover to a more normal level following an extremely poor 1988/89 season when output plummeted to 1,400 tons--the smallest since 1960. The forecast for 1989/90 currently stands at 2,500 tons of almonds of average quality. Portugal's almond industry has remained relatively static for the past several years. Almost all production is from old, low-yielding and basically unattended trees. Since Portugal's accession to the EC, nearly 500 hectares of new, irrigated orchards have been planted with high-yielding, late-blossoming varieties. Growth remains slow as production costs continue to rise, labor is lost to other sectors or emigration, land is sold to the construction industry, and farmers, seeking better returns, plant alternative crops such as citrus. The new EC subsidies for structural improvements may stimulate growth in area and production. Reportedly, Portugal's Ministry of Agriculture is preparing an additional program that is tailored to the specific needs of the almond sector and involves subsidizing investment by individuals as well as producer associations. If approved, the Government's subsidization program will go into effect in 1990. Together these two programs may or may not expand production potential in Portugal. They are, at the very least, expected to arrest the present slump in the industry.

Spain's 1989/90 almond harvest is currently forecast at 90,000 tons, more than double last year's freeze-damaged crop. Although an on-year in the alternate bearing cycle, production potential was reduced 10-15 percent by pollination problems resulting from excessive fog and rains early in the season. However, quality and kernel size appear good. Almond acreage continues to expand. Newly developed orchards in Murcia, Andalusia, and Aragon have been planted with late-blooming, cold-resistant varieties, and cultivated using modern farming techniques and minimal irrigation.

Morocco's 1989/90 almond crop is forecast at a record 8,500 tons, 15 percent above last season's high of 7,417 tons. Growing conditions were favorable with more than adequate rainfall. Among horticultural crops, almonds rank second to olives with a planted area currently estimated at 105,000 hectares. The majority of almond trees are planted on marginal lands in relatively dry areas and are often intermixed with field crops. The recent upward spiral in area reflects new plantings resulting from Government incentives for the creation of new orchards. The almond tree's tolerance of Morocco's extreme weather conditions, high grower prices, and the ease of storage stored have also contributed significantly to new almonds plantings.

The 1989/90 Turkish crop is forecast at a record 15,000 tons, up 15 percent from a year ago. Even though tree numbers have declined marginally in recent years, the larger crop being projected for the 1989/90 season is predicated on the extremely favorable weather conditions that were prevalent throughout the growing season.

The U.S. almond crop is currently estimated at 192,780 tons, down 28 percent from the bumper 1988/89 crop of 267,620 tons. Although the crop has progressed well throughout the season, the average nut set per tree is approximately 24 percent below the 1988/89 level. Nut quality appears good to excellent. Kernel sizes are slightly larger than normal.

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TABLE 20

ALMONDS: PRODUCTION IN SELECTED COUNTRIES  
(1,000 Metric Tons - Shelled Basis)

	<u>1987/88</u>	<u>1988/89</u>	<u>1989/90</u> <u>1/</u>
Greece	8.5	19.0	16.3
Italy	12.0	14.0	20.0
Morocco	6.3	7.4	8.5
Portugal	2.7	1.4	2.5
Spain	65.0	40.0	90.0
Turkey	10.0	13.0	15.0
United States	299.4	267.6	192.8
Total	403.9	362.4	345.1

1/ Preliminary

## WORLD PEANUT PRODUCTION

World peanut production is forecast at 22.8 million tons, up less than 1 percent from last year's record crop. Output has increased rapidly in recent years, with China, the second largest producing country, accounting for a majority of the advance. Over the last 10 years, world peanut output climbed 5.3 million tons or 31 percent.

INDIA: In 1989/90, it is estimated that India, the largest producer, will account for an estimated one-third of total world peanut output. This year the Indian crop is placed at 7.5 million tons from 7.6 million hectares, which would be down 8 percent from last year's record crop of 8.3 million tons. For further information on Indian peanut production prospects and background see "Peanut Production in India" on page 51.

CHINA: China's peanut production is estimated at 6.2 million tons for the 1989/90 season, up 500,000 tons or 9 percent from a year ago. This would be China's second-largest peanut crop; a record 6.7 millions tons was harvested in 1985/86. Peanuts are a popular cash crop for Chinese farmers because it offers higher returns than many other crops. About one-quarter of the crop is bought by the state at a low, government-fixed price, but farmers are able to sell the remaining crop on the free market for much higher prices. Although peanuts are grown across the country, the northern province of Shandong accounts for more than 35 percent of total production. Other major producing provinces are Henan and Hebei in the North and Guangdong and Guangxi in southern China.

Peanut area in China is expected to exceed 3 million hectares this season, which is slightly more than a year ago and up about one quarter from the level of the early 1980's. There is strong demand for peanut products, but further area expansion is limited by competition for scarce farmland from grain and cotton in the North and from other cash crops in the South. The average peanut yield in China, at about 2.0 tons per hectare, is among the highest in the world. There are plans to raise yields even higher with the expanded use of improved seed varieties, fertilizers, and plastic sheeting.

Growing conditions in China during the 1989 cropping season have been mixed. Dry weather prevailed during planting in May, but rain in June and July helped to provide adequate moisture for the growing crop. In late July, dry weather returned to the major producing areas in northern and southeastern China and may have had a negative impact on yields. However, as of mid-August, occasional showers have helped ease drought conditions somewhat. Harvest normally takes place from late September through October.

UNITED STATES: As the third largest peanut producing country, the United States is forecast to harvest a record 2-million-ton crop this season, up nearly 11 percent from 1988/89. Harvested area is estimated at 668,000 hectares, up 1 percent from last year and the largest since 1955. Yields are estimated at 3.0 tons per hectare, up 10 percent from last year. If realized, this would be the fourth largest U.S. yield on record.



AFRICA: Peanuts are a significant and important crop for many African countries. The major producers include Senegal, Nigeria, Zaire, Sudan, South Africa, Gambia, and Cote d'Ivoire. Together this group is forecast to produce 2.5 million tons of peanuts in 1989/90, up 173,000 tons or 7 percent from last year. While the Sudan is expected to harvest a peanut crop somewhat less than last year, Senegal's crop is placed at 815,000 tons, up 125,000 tons from last year's harvest, and Nigerian peanut output is forecast at 450,000 tons, up 100,000 tons. The rest of the countries in this group are expected to produce crops near last year's levels.

SOUTHEAST ASIA: The two major producers in Southeast Asia, Burma and Indonesia, together are forecast to produce a peanut crop of 1.38 million tons in 1989/90, up marginally from last year. Both countries have demonstrated slow but steady growth in peanut production, climbing from a combined output of 1.1 million tons in 1974/75. A record crop of 800,000 tons is forecast for Indonesia for 1989/90. Burma's crop is estimated at 575,000 tons in 1989/90, up slightly over last year. If achieved, this will be its second-largest crop on record.

SOUTH AMERICA: The combined 1989/90 Brazilian and Argentine peanut crop is forecast at 550,000 tons, up 140,000 tons or 34 percent from last year. The Argentine crop, forecast at 370,000 tons, is expected to recover from last year's drought, which severely impacted yields. Peanut production in Argentina has been highly variable because of great year-to-year variations in planted area and growing conditions. Peanut area is trending downward in Argentina, falling from a record 428,000 hectares of harvested peanuts in 1977/78 to only an estimated 155,000 hectares for harvest in 1989/90.

Brazilian peanut production for 1989/90 is estimated at 180,000 tons, 40,000 tons above last year's crop, which was the smallest outturn in recent history. Production has steadily declined since 1979/80, primarily due to the conversion of area to soybean production. The state of Sao Paulo is Brazil's major peanut producing area, accounting for 85 percent of the country's total peanut production.

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WORLD PEANUT AREA HARVESTED

(1,000 Hectares)	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Forecast 1989/90
Argentina	357	309	367	428	393	279	197	166	125	146	143	168	233	192	151	155
Australia	24	27	31	30	37	32	27	33	36	32	30	29	37	34	29	30
Bangladesh	24	22	21	23	25	23	24	22	21	32	28	30	30	38	34	35
Benin	99	99	99	73	75	75	75	75	75	75	75	80	80	80	85	85
Brazil	345	370	229	253	286	320	235	235	210	150	190	161	142	102	90	115
Burkina	140	140	140	140	140	140	140	140	140	140	140	180	230	230	250	230
Burma	674	686	610	599	558	486	514	598	571	561	647	595	564	537	585	600
Burundi	13	20	20	20	19	28	30	30	30	30	30	30	40	55	55	55
Cameroon	202	382	336	341	387	358	363	311	315	300	300	320	320	320	320	320
Central African Republic	105	114	113	103	110	122	122	129	100	116	116	125	125	135	135	130
Chad	101	101	101	101	101	101	101	101	101	101	101	101	115	115	120	115
China (Mainland)	1,827	1,877	1,841	1,687	1,768	2,075	2,339	2,472	2,416	2,201	2,421	3,318	3,253	3,022	2,914	3,050
Dominican Republic	49	70	60	45	40	35	28	28	23	21	21	20	24	21	21	21
Gambia	105	99	108	105	106	97	83	93	123	110	110	110	80	95	95	90
Ghana	110	95	93	109	109	109	109	105	80	80	80	80	90	100	100	90
Guinea	31	32	31	31	31	125	127	130	130	130	130	130	130	130	130	130
Guinea-Bissau	80	80	80	80	80	80	80	80	80	80	80	80	80	80	85	80
India	7,063	7,222	7,043	7,029	7,433	7,165	6,801	7,429	7,215	7,539	7,168	7,120	6,982	6,735	7,800	7,600
Indonesia	475	414	507	506	473	506	508	461	480	523	510	515	516	545	550	555
Ivory Coast	56	57	58	59	61	83	65	93	70	101	118	117	125	136	142	145
Japan	46	41	38	35	35	34	33	32	30	30	29	27	24	23	21	20
Madagascar	40	49	47	38	40	37	36	32	32	32	33	33	34	31	34	34
Malawi	239	239	250	250	250	250	250	250	260	146	145	136	176	170	155	155
Mali	97	97	97	97	97	97	97	97	97	97	97	97	97	110	115	100
Mexico	40	42	38	38	42	38	40	47	45	45	40	43	45	90	85	85
Morocco	17	16	11	19	28	26	28	32	36	23	25	24	21	21	23	30
Mozambique	200	200	200	200	200	200	180	170	170	120	140	140	150	150	150	150
Niger	254	318	178	174	195	145	169	150	140	159	140	100	100	100	130	110
Nigeria	970	980	920	820	600	600	650	479	600	600	550	520	660	800	700	750
Pakistan	40	44	45	51	46	41	47	60	69	72	58	55	63	67	65	70
Paraguay	19	21	21	23	24	24	25	37	37	37	39	40	32	28	32	35
Philippines	55	61	63	48	54	55	39	56	48	46	47	50	45	51	50	53
Senegal	1,050	1,302	1,315	1,079	1,150	1,048	1,064	1,080	1,121	937	874	607	808	846	903	860
South Africa	227	159	174	214	213	328	289	238	227	238	230	221	207	153	185	185
Sudan	749	867	750	1,037	934	926	894	998	782	770	735	400	540	575	575	550
Taiwan	64	64	59	53	58	53	51	51	46	52	53	49	50	59	56	60
Tanzania	77	124	124	118	88	92	94	95	96	98	98	98	98	98	98	98
Thailand	130	118	119	90	100	92	100	117	117	120	125	123	125	118	119	118
Togo	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
Turkey	18	18	23	22	22	25	19	25	24	24	23	21	22	32	30	30
Uganda	245	245	245	238	102	100	110	120	120	120	124	124	130	130	130	130
United States	596	609	616	614	611	615	566	602	517	556	620	594	622	626	659	668
Vietnam	74	95	95	100	91	108	119	130	141	170	180	190	195	195	195	195
Zaire	432	443	453	457	460	465	480	496	510	524	524	524	524	530	530	530
Zambia	100	100	102	75	22	26	34	22	31	30	32	33	70	80	56	80
Zimbabwe	354	358	343	253	253	190	240	255	192	151	133	153	202	211	210	210
Others 1/	52	50	45	54	76	98	96	84	77	80	84	81	86	92	89	95
WORLD TOTAL	18,110	18,921	18,304	18,004	18,068	17,997	17,763	18,531	17,951	17,790	17,661	17,837	18,367	18,133	19,131	19,077

1/ Other countries include those with less than 20,000 hectares harvested annually.

September 1989

Foreign Production Estimates Division, USDA



## WORLD PEANUT PRODUCTION

(1,000 Metric Tons)	1974/75	1975/76	1976/77	1977/78	1978/79	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Forecast 1989/90
Argentina	400	339	600	372	672	337	243	270	250	329	270	439	518	450	270	370
Australia	32	35	32	39	62	39	43	58	23	47	42	43	45	48	44	47
Bangladesh	26	32	23	28	28	26	24	23	23	33	32	34	34	48	45	45
Benin	40	40	61	60	64	70	63	52	67	70	70	70	70	70	75	75
Brazil	442	514	324	340	465	545	310	305	250	220	337	216	195	170	140	180
Burkina	65	65	65	85	70	69	70	77	77	80	70	128	160	146	180	160
Burma	459	404	416	457	384	337	431	564	541	532	667	560	544	519	565	575
Burundi	7	15	24	27	25	36	38	40	40	40	35	40	55	70	70	70
Cameroon	73	246	287	267	116	156	110	87	90	120	110	140	140	140	145	140
Central African Republic	85	133	130	120	120	122	123	125	128	115	130	140	140	140	150	140
Chad	90	70	70	70	70	70	70	70	70	70	70	70	80	80	90	80
China (Mainland)	2,323	2,270	1,873	1,978	2,377	2,822	3,600	3,826	3,916	3,951	4,815	6,664	5,882	6,170	5,800	6,200
Dominican Republic	60	70	60	50	47	30	28	25	20	18	15	18	19	18	18	18
Egypt	25	28	28	30	33	33	33	23	24	20	35	37	40	42	41	45
Gambia	145	141	143	100	133	67	60	109	151	113	120	125	110	120	125	120
Ghana	154	109	86	75	45	45	45	42	34	36	36	50	60	70	80	70
Guinea	27	27	27	31	32	84	85	85	85	85	85	85	85	85	85	85
Guinea-Bissau	55	55	55	55	35	35	20	30	30	22	30	30	30	30	35	30
India	5,111	6,755	5,264	6,087	6,208	5,768	5,005	7,223	5,282	7,086	6,436	5,120	5,875	5,300	8,300	7,500
Indonesia	633	568	682	743	708	783	791	728	795	747	755	780	750	786	795	800
Ivory Coast	49	49	49	50	52	77	56	86	60	98	108	106	118	130	137	140
Japan	91	71	65	69	62	67	55	61	47	49	51	51	47	46	32	30
Madagascar	39	54	47	34	40	34	34	33	34	31	32	31	33	28	33	33
Malawi	165	165	174	170	170	177	180	170	170	54	55	62	88	66	56	60
Mali	120	178	119	128	126	116	92	92	80	50	45	90	90	100	115	90
Mexico	50	56	52	72	67	55	60	73	50	60	55	65	60	110	103	100
Morocco	13	19	13	8	26	27	31	41	42	32	35	29	25	35	32	40
Mozambique	72	72	80	70	80	75	90	80	80	65	65	65	70	70	70	70
Niger	129	42	79	82	97	89	126	120	80	74	30	40	60	45	80	60
Nigeria	658	432	443	432	488	377	530	428	396	591	500	400	400	475	350	450
Pakistan	61	62	64	72	45	50	57	72	84	88	69	63	75	52	70	75
Paraguay	15	18	18	25	23	25	25	36	37	37	42	40	40	35	25	45
Philippines	36	41	46	38	49	50	30	49	36	42	42	44	41	46	45	48
Senegal	980	1,424	1,182	509	1,053	673	521	878	1,109	568	560	587	817	932	690	815
South Africa	243	132	240	299	179	348	309	116	89	72	196	111	235	204	230	230
Sudan	930	931	705	1,027	815	852	707	740	497	413	390	275	380	435	450	400
Taiwan	94	91	89	77	92	86	82	83	63	87	89	77	83	100	95	100
Tanzania	46	74	74	70	52	54	56	58	58	59	60	60	60	60	60	60
Thailand	161	142	152	106	128	109	129	147	145	147	172	172	169	162	170	162
Togo	20	20	20	27	35	30	30	30	30	30	30	35	35	35	35	35
Turkey	44	40	55	50	52	58	41	57	50	50	48	59	50	80	80	80
Uganda	194	177	193	187	80	65	80	90	100	100	100	100	115	120	120	118
United States	1,664	1,745	1,696	1,685	1,793	1,800	1,045	1,806	1,560	1,495	1,998	1,870	1,679	1,642	1,806	2,012
Vietnam	69	96	91	92	82	98	110	116	126	162	165	170	175	175	180	180
Zaire	308	319	320	307	310	313	320	347	357	367	375	375	380	380	380	380
Zambia	100	100	95	75	22	26	20	13	11	13	15	18	30	35	28	35
Zimbabwe	197	186	141	105	114	83	130	115	32	41	68	73	51	79	80	80
Others 1/	49	49	53	72	96	141	133	133	116	129	128	133	147	160	160	163
WORLD TOTAL	16,849	18,701	16,605	16,952	17,922	17,429	16,271	19,832	17,435	18,738	19,683	19,990	20,385	20,339	22,765	22,841

1/ Other countries include those with less than 20,000 hectares harvested annually.

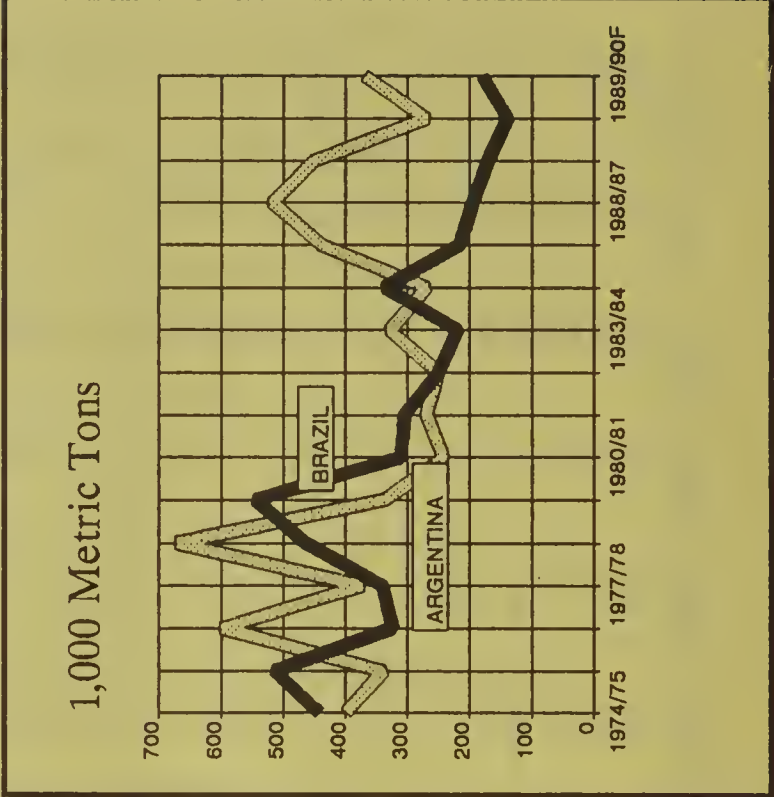
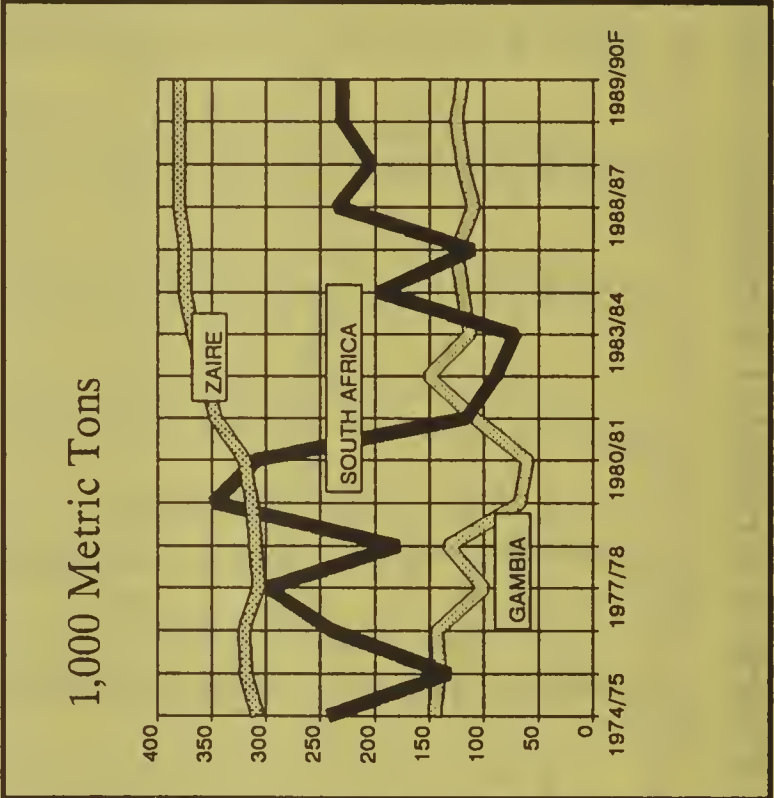
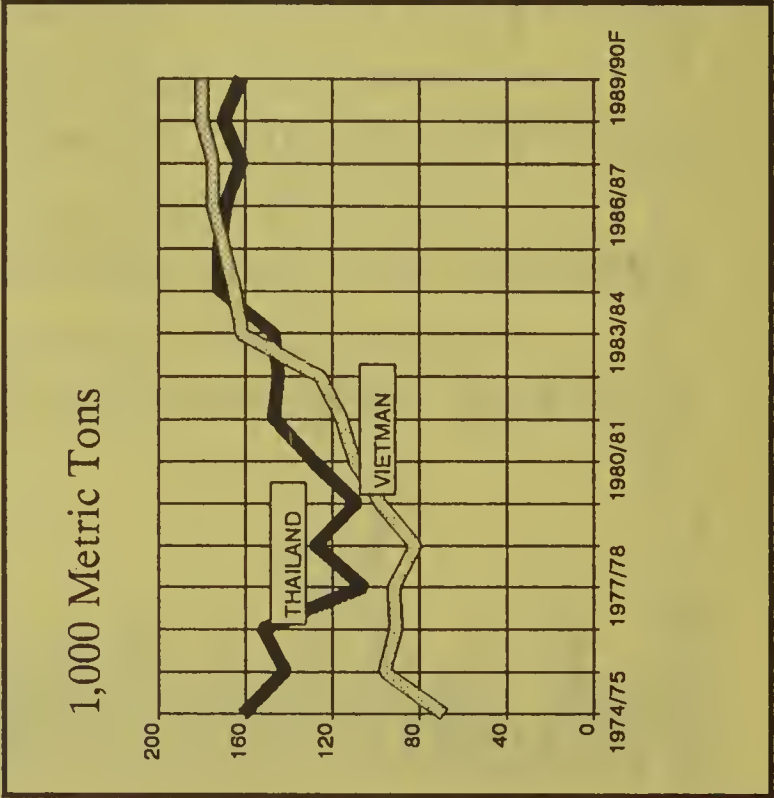
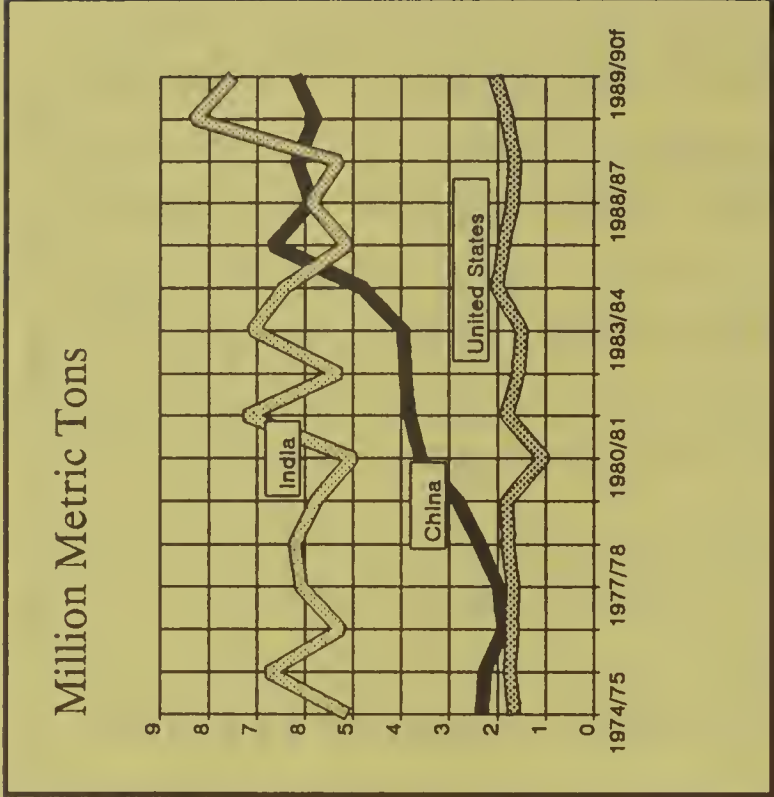
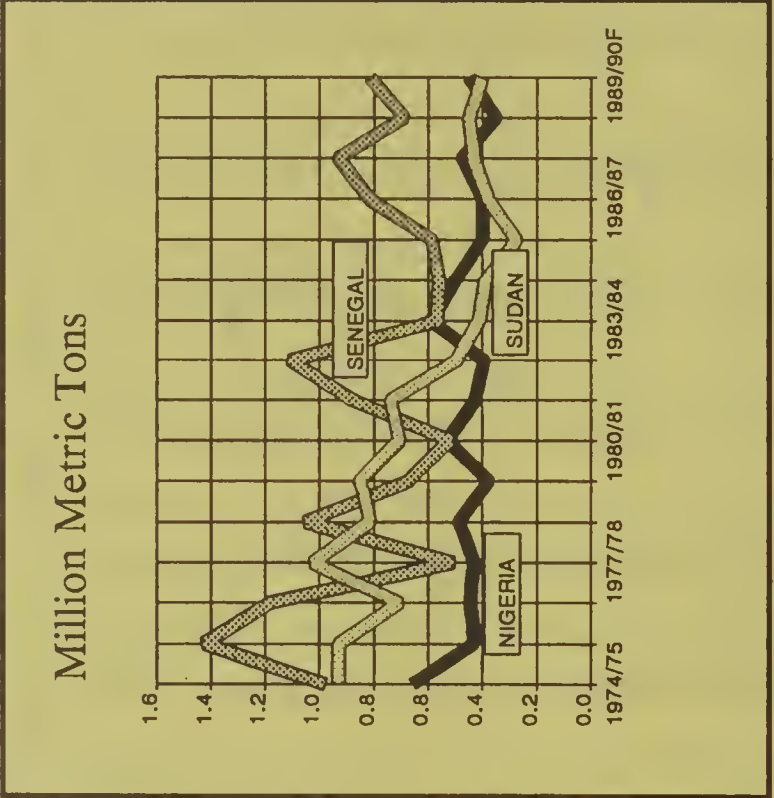
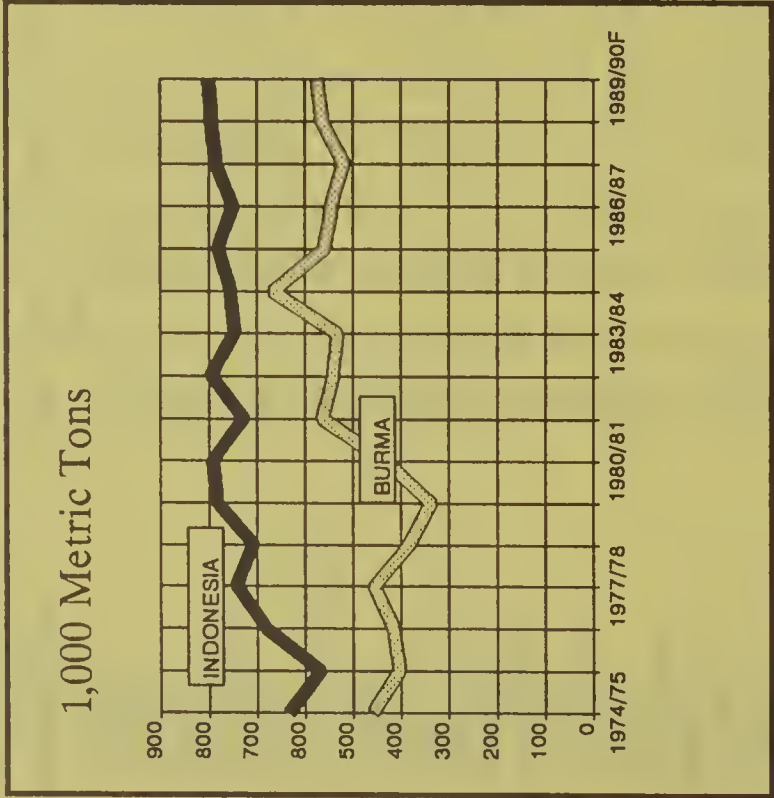
= Indicates increase over last year.

September 1989

Foreign Production Estimates Division, USDA

# PEANUT PRODUCTION IN SELECTED COUNTRIES

1974/75 - 1989/90 Forecast(In-Shell Basis)





## INDIA PEANUT PRODUCTION OVERVIEW

The oilseed sector of the Indian agricultural economy is second only to foodgrains in significance, accounting for nearly 10 percent of the country's total cultivated area and value of agricultural production. Of the five primary edible oilseed crops cultivated in India, peanuts are of greatest importance. India ranks first in the world in both cultivated peanut area and in peanut production. In 1988/89, India harvested an estimated 7.8 million hectares, accounting for 41 percent of total world peanut area, and contributed 36 percent of world peanut production with a record 8.3-million-ton crop. Average peanut productivity, however, remains low by world standards. Yields have stagnated for the past 20 years, averaging around 0.8 tons per hectare. By comparison, peanut yields in the United States over the past 10 years have averaged 2.8 tons per hectare.

As the country's preeminent oilseed, peanuts occupy approximately 45 percent of total oilseed area in India, contributing about 65 percent of total oilseed production, as well as 59 percent of all domestic edible oil output. It plays the primary role in maintaining the balance of the domestic vegetable oil economy, as well as providing nominal amounts of high quality HPS (Hand Picked Select Grade) seed for export. It is estimated that 90 percent or more of all peanuts grown in India are processed domestically for oil, with about 6.5 percent consumed for food uses.

The monsoon driven peanut production environment is very unstable and has led to large fluctuations in yearly output of both seed and oil. An example was the large negative impact that the 1987/88 monsoon failure had on the peanut crop, reducing output to 5.3 million tons, and necessitating record Indian vegetable oil imports. The following season witnessed a 57-percent increase in output due to a highly favorable monsoon, with total 1988/89 peanut production estimated at a record 8.3 million tons. This turnabout enabled the government to build oilseed and vegetable oil stockpiles and aided the curtailment of major vegetable oil imports. The underlying weakness in the oilseed sector due to the unreliable supply of oilseeds has led the government to focus in recent years on research and development into new varieties and improved agronomic practices. Weather variability, however, remains the primary limiting factor to dependable productivity.

### PEANUT CULTIVATION

Peanuts are grown over a vast area of the Indian Subcontinent, being cultivated in nearly every state, on an average of 7.0 million hectares annually. Cultivation is split into two basic growing seasons, with approximately 75 percent of total production occurring during the summer monsoon or kharif growing period. An important and growing secondary crop is cultivated in the winter rabi season under mostly irrigated conditions and accounts for nearly 25 percent of total production. The rabi crop has witnessed great increases in the past 10 years in both area planted and productivity and is beginning to show promise in helping stabilize peanut production.

In general, peanuts are cultivated under a host of negative conditions, as listed below.

- o Roughly 85 percent of peanut area is rainfed.
- o Rainfall is commonly erratic during critical growth periods.
- o Peanut cultivation occurs on primarily poor to submarginal farmland.
- o Land devoted to peanut production is of low fertility.
- o Pests and disease cause considerable losses on an annual basis.
- o Most peanut growers farm less than 2 hectares, with little ability to invest in crop inputs.
- o Fertilizer usage for peanuts is very low.
- o Production, distribution, and use of high-quality seed is very limited.
- o Peanuts are generally grown under poor management conditions.
- o Farm credit has been historically deficient.
- o Nationally, there has been an inadequate supply of crop inputs, extension services, and post-harvest storage facilities.

Planting operations for the kharif crop begin with the onset of the southwest monsoon, usually occurring from early June to mid-July. Critical reproduction growth phases generally occur in late August and early September, when rainfall is unreliable. Moisture stress at sensitive flowering and pod-filling stages is common and is a major factor responsible for low annual yields and fluctuating peanut production. Harvest of the kharif crop occurs between September and December, progressing from the southern states to northern growing areas. The rabi season begins in late December, with plantings continuing through April in most states. Harvest operations normally occur from May to July. The rabi crop benefits from soil moisture supplies left by the retreating southwest monsoon, as well as from winter irrigation sources diverted from rice and wheat cultivation. Yield levels are much higher than those achieved during the primarily rainfed kharif season, achieving an average of 1.4 tons per hectare.

TABLE 23

INDIA: 1988/89 PEANUT AREA AND PRODUCTION IN MAJOR STATES

State	Area (1,000 Ha.)	Percent	Production (1000 Tons)	Percent
Gujarat	2,200	28	2,500	30
Andhra Pradesh	1,800	23	1,900	23
Tamil Nadu	1,000	13	1,050	13
Karnataka	1,000	13	900	11
Maharashtra	750	10	800	10
Orissa	400	5	550	7
Madhya Pradesh	250	3	250	3
Other	400	5	350	3
Total	7,800	100	8,300	100

\* Estimates provided by U.S. Agricultural Counselor, New Delhi.

The peanut growing region of India can be roughly divided into two separate areas, including the Central West and Southern Zones.



The Central West Zone consists of the states of Gujarat, Maharashtra, Madhya Pradesh, and Rajasthan. These states accounted for 44 percent of total peanut area in 1988/89, as well as producing 45 percent of the total crop. Peanuts in this region are grown on sandy soils, as well as sandy loams and medium black soils. Waterlogging is a common problem during heavy monsoon rains on the black soils in Gujarat's peninsular Saurashtra region, considered the peanut bowl of India. The crop is normally sown with the onset of summer monsoon rains, with a 5-month growing period from June to October. In most years, rainfall is erratic during crucial growth phases and adversely affects peanut yields. Despite the relatively short annual rainy season of June 15 to September 15, Gujarati farmers prefer to cultivate late-maturing, spreading peanut varieties. The green leaf yield is an important fodder source for their large cattle herds and is an especially valuable resource in dry years when pod yield is uncertain. Bunch varieties are predominantly cultivated in the states of Maharashtra and Madhya Pradesh, while both spreading and bunch varieties are grown on small plots in Rajasthan.

The Southern Zone includes the states of Andhra Pradesh, Karnataka, and Tamil Nadu. This region accounted for 49 percent of total peanut area in 1988/89, while producing 47 percent of total output. This zone is becoming increasingly important in the effort to stabilize India's peanut production situation by offsetting losses due to poor weather in the Central West Zone. Cultivation occurs during both the kharif and rabi growing seasons, with rabi production approaching 2.0 million tons. Peanuts are primarily rainfed, although rabi production is more heavily irrigated. In Andhra Pradesh, spreading varieties are preferred in coastal growing areas, while short season bunch types are predominant in the heartland of the southwest. In Tamil Nadu, there has been a shift from Virginia Runner to Spanish/Valencia bunch varieties, with most of the planted area currently under Spanish types. In Karnataka, peanut cultivation is concentrated in the northern half of the state, with both spreading and bunch varieties grown.

TABLE 24

INDIA: PEANUT STATISTICS BY STATE

State	Area Under High-Yielding Varieties <sup>1/</sup> (Percent)	Irrigated Area <sup>2/</sup> (Percent)	Yield <sup>3/</sup> (MT/Ha)
Gujarat	89	12	1.14
Andhra Pradesh	77	20	1.06
Tamil Nadu	98	27	1.05
Karnataka	24	16	0.90
Maharashtra	23	27	1.07
Orissa	--	27	1.38
Madhya Pradesh	74	2	1.00

<sup>1/</sup> HYV area estimated by Government of India.

<sup>2/</sup> Irrigated area estimated by Government of India 1983/84.

<sup>3/</sup> Yield estimated by U.S. Agricultural Counselor, New Delhi, for 1988/89.

## PEANUT DEVELOPMENT

Beginning in the mid- to late 1960's, India's domestic consumption of oilseeds and oils began to outstrip supply. The increasing demand, owing to rising population and growing consumption, was supported through annual imports. The import bills continued to build as domestic output stagnated during the early 1970's. Recognition of the need for considerable oilseed research and development efforts led to the formation of the All India Coordinated Research Project on Oilseeds (AICORPO) in 1967. Peanuts, being of singular importance in supporting the domestic vegetable oil supply, received special attention. At the same time, the government encouraged the expansion of oilseeds area, which brought largely rainfed marginal land areas under cultivation.

Research efforts since 1967 have yielded a plethora of new peanut varieties, cropping systems information, and improved agronomic management recommendations. Transferral of the knowledge, information, and new technology to the majority of small farmers, however, has been insufficient and remains a major weakness in the effort to date. At least 37 new peanut varieties have been released, including 2 varieties of Valencia, 19 Spanish bunch, and 8 Virginia Bunch and Virginia Runner groups. The majority of released cultivars have been bunch types, despite the fact that more than 50 percent of planted area in the major peanut producing states is devoted to Virginia Runner varieties. Indian agronomists have indicated that attention must be directed to developing early maturing Virginia Runner varieties for the Central West Zone, early season, drought-tolerant varieties for the Southern Zone, and late season, drought varieties for the Central West Zone.

Government programs introduced since 1979 have contributed to the improving oilseeds production potential in India. Annual government support for peanut cultivation includes subsidized seed, fertilizer, pesticides, and irrigation equipment during the growing season. Assistance to private sector breeder seed producers also was initiated to increase output and availability of quality hybrid seed. Market support for farmers in the form of stable peanut procurement prices, as well as additional credit to marginal farmers also was implemented. In total, government support programs are estimated to cover virtually 78 percent of total oilseed area, with special focus on peanuts. Despite this strong commitment to oilseeds development, the production environment continues to be plagued by its susceptibility to adverse weather. This weakness was evident in the inability of these extensive programs to prevent the huge shortfall in peanut output, or total oilseeds production, during the 1987/88 drought. The stunning rebound to record production levels for oilseeds, including peanuts, during the 1988/89 season appears to be attributed to the ideal monsoon performance across the entire subcontinent. The special programs, however, did contribute to the record season, by being in place and operating at optimum levels.

## CURRENT CROP SITUATION

Before the beginning of the monsoon in June 1989, the Government of India predicted that the 1989/90 monsoon season would be near normal in most sections of the country. Procurement prices for peanuts were raised 9 percent from 1988/89 levels, while fertilizer and seed supplies were widely distributed in local markets. A concerted effort was under way to prepare for a second record production year. Market prices, however, were well below last year's levels at planting, due to adequate oilseeds supplies from record 1988/89 crops.



Very favorable June monsoonal showers across the entire peanut belt helped farmers plant early this year and set the stage for another productive season. July rainfall was above normal in most peanut growing states, while excessive rains reaching 13 inches occurred in major peanut districts of Andhra Pradesh and Gujarat. August conditions have been mixed, with the majority of peanut areas receiving well below normal rainfall, including the prime growing areas of Gujarat. As the kharif crop progresses through reproductive and pod-filling stages in August and September, moisture requirements are at peak sensitivity. It has been estimated that lack of appropriate rainfall at pod-filling stage can decrease average yield by 20-50 percent.

The 1989/90 crop outlook is mixed, owing to poor rainfall conditions during reproductive growth periods in much of the peanut belt. Widespread showers are needed in most of the peanut growing region to maintain strong yield potentials. Normally, the monsoon begins its withdrawal from northern India in mid-September, exiting central and southern India in mid-November. The southern peanut growing areas, which were rainfall deficient in August, normally benefit during this withdrawal period, and September rainfall will be critical in determining yields. Current estimates reflect a strong kharif crop, with total peanut production at 7.5 million tons from a slightly reduced area of 7.6 million hectares.

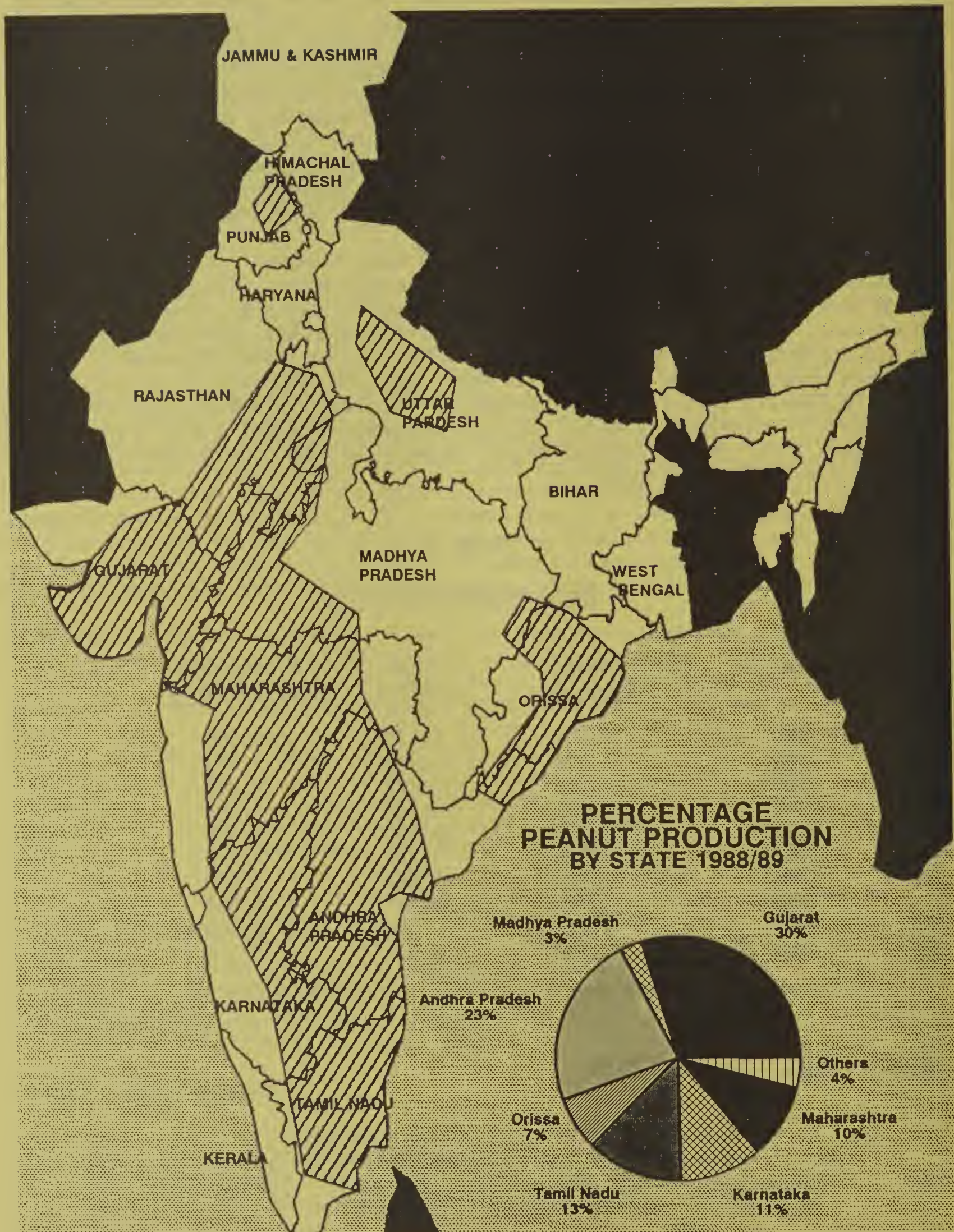
TABLE 25

INDIA PEANUT PRODUCTION

Year	Area (1,000 Ha.)	Yield (MT/Ha.)	Production (1,000 Tons)
1980	6,801	0.736	5,005
1981	7,429	0.972	7,223
1982	7,215	0.732	5,282
1983	7,539	0.940	7,086
1984	7,168	0.898	6,436
1985	7,120	0.719	5,120
1986	6,982	0.841	5,875
1987	6,735	0.787	5,300
1988	7,800	1.064	8,300
1989 (Est.)	7,600	0.987	7,500

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# INDIA'S PEANUT PRODUCING AREAS



## WORLD RED MEAT PRODUCTION

World red meat production for 1989 is projected up less than 1 percent with higher pork and sheep and goat meat production more than offsetting a slight reduction forecast for beef production. In 1990, red meat production is projected to again increase slightly, with pork showing the largest absolute growth and sheep and goat meat gaining the most in percentage terms. Aggregate estimates are as follows.

	<u>World Red Meat Production</u> (Millions of Tons)			
	1987	1988	1989	1990
Beef and veal	44.97	45.26	45.14	45.18
Pork	59.10	62.16	62.35	62.71
Sheep and goat meat	5.57	5.73	5.88	6.03
Total	109.64	113.15	113.38	113.92

## Livestock Inventories

World cattle numbers began to increase in 1988 due in large part to recovery from drought losses in India and continued expansion in China. These increases were partly offset by continued herd reductions in the United States, Argentina, Turkey, and South Korea, largely because of unfavorable producer returns and in Colombia because of unstable political conditions. In the European Community (EC), herd rationalization continued but the inventory reduction was less in 1988 than in 1987. During 1989, livestock numbers are forecast to continue expanding, increasing in most countries with the exception of Mexico and Uruguay where drought has depleted forage supplies. World hog numbers at the start of 1989 were up largely because of herd growth in China. At the start of 1990, hog numbers are expected to be down 2 percent because of tight margins in most market economy countries and a projected 3 percent fall in China due to feed shortages. World sheep numbers for 1989 are estimated higher in large part because of increased demand for wool. High wool prices have persisted despite record production levels. Most flock growth was in China and Australia. Inventories for 1990 are forecast up again with China and Australia contributing most of the increase.

## Beef And Veal Production

Beef and veal production is projected down slightly in 1989 after reaching a record high in 1988, but are forecast up slightly in 1990. U.S. beef production is projected to fall over 3 percent this year with cattle slaughter at a 10-year low. The drop in slaughter is expected to result in higher cattle numbers at the beginning of 1990, the first increase since herd culling started in 1982. U.S. beef production is projected up slightly for 1990.

Argentina's beef production is projected to fall 3 percent this year and a further 3-percent reduction is expected in 1990. Total cattle numbers fell 500,000 head in 1988 with a slightly smaller decline expected in 1989. The drop in cattle numbers has been mostly a result of high interest rates, weak domestic demand for beef, and uncertainty over Government policy on beef prices. High grain prices and poor pasture conditions also were factors this year.

In Mexico, drought and economic problems have caused heavy herd culling, resulting in a 22-percent rise in beef production in 1989.

Australia's beef production is down 6 percent this year due in part to herd rebuilding. For 1990, production is projected to recover to slightly above the 1988 level. Australian cattle numbers rose 3 percent in 1988. A 4-percent increase is projected for this year because abundant rainfall in the North ended a drought that had persisted for several years and a second good season in the South has allowed an increase in carrying capacity. In addition, the economic outlook is favorable for Australian beef because of strong current prices and Japanese investments in the fed beef sector to prepare for quota-free sales to Japan. For 1989, Australian fed cattle production is estimated at 1 million head or 16 percent of adult cattle slaughter. Cattle feeding in Australia is practiced both to produce fed beef and to maintain herds during periods when pasture conditions are poor. Therefore, comparisons to earlier data on fed cattle may be misleading. If a more intensive fed beef industry like that of the United States does develop, it can be expected to reduce Australia's grain availability for export.

Soviet cattle herd culling slowed in 1988 as the mild weather after January helped to moderate demand for the limited forage and feed concentrate supplies. Reduced cattle slaughter and projected higher carcass weights are expected to permit both a moderate rise in production and some growth in cattle inventories.

Beef production in the EC is projected to fall 2 percent in 1989 and drop slightly again in 1990. Production is down 600,000 tons from the record levels of 1986 and 1987 when dairy herd culling was heavy. Herd culling slowed in 1988, with 1989 inventories of all cattle down 2 percent compared to a 3-percent drop a year earlier and a less than 1-percent decline projected for 1990. Since the start of dairy herd culling in 1984, dairy cow numbers have fallen by about 4 million head, while beef cow numbers have risen by about 1 million. This rapid growth in the beef cattle sector suggests an evolution in the EC cattle industry. Beef was largely a byproduct of the dairy industry, but the trend is now toward specialized production of beef as a primary product.



## Pork Production

World pork production is estimated to rise by 200,000 tons in 1989 compared to a 3.1-million-ton increase in 1988. Slower growth is expected to continue in 1990. Drought has caused successive herd reductions in Mexico during the past 2 years and is expected to result in a cut in pork production of nearly 40 percent next year. EC hog numbers were down 2 percent at the start of 1989 and a further slight decline is expected this year. As a consequence, 1989 EC pork production is forecast down for the first time in more than 10 years and 1990 output is expected to remain below 1988 levels. EC pig inventory reductions were triggered by weak prices in 1987 and early 1988 and by pollution controls, especially in the Netherlands. Growth in Chinese pork production is reported to be slowing due to limited feed supplies. U.S. pork production for 1989 is projected up 2 percent, but production for 1990 is projected down slightly. Soviet hog numbers were up less than 1 percent at the start of 1989 and a smaller increase is projected for 1990. For 1989, Soviet pork production is projected up 2 percent with a small increase projected for next year. Since 1986, carcass weights in the Soviet Union have increased 10 percent and pork output has outpaced gains in pig inventories. Eastern European 1989 pork production is projected down 2 percent and 1990 output is expected to be down slightly. This year's loss is explained by lower production in Poland because of low producer returns and smaller output in Yugoslavia due to weak demand and high production costs.

## Sheep and Goat Meat Production

Sheep and goat meat production is up 3 percent this year and a similar increase is expected in 1990. Most of the 1989 growth is due to expanding production in China and India, while China and Australia account for the 1990 increase. Australia's sheep industry is geared primarily to wool production with sheep meat as a byproduct. Australia's 1988/89 average wool prices are up 10 percent over year-ago levels, but the market has begun to weaken because of reduced sales to China. Australian sheep meat production, up only slightly this year, is expected to be up 9 percent in 1990 as flock rebuilding slows and culling of over-age animals increases. Sheep numbers, which were up 11.5 million head in 1988, are projected to rise another 9 million head this year. New Zealand's sheep numbers were up slightly at the start of 1989, but are expected to be down 6 percent at the beginning of 1990 because of a drought, which just ended in most parts of the country. Sheep meat production is forecast up 2 percent in 1989 because of drought-induced culling. Production is projected down in 1990 because of the smaller flock. In New Zealand, wool is, for the most part, a byproduct of the slaughter lamb industry, but farmers are now upgrading their flocks to produce finer wool in order to expand wool sales. Chinese sheep and goat numbers and meat production are expanding rapidly because of increased demand for wool and meat.

TABLE 26

CATTLE AND BUFFALO INVENTORIES, SELECTED COUNTRIES  
(THOUSAND HEAD JANUARY 1)

	1987	1988	1989	1990
Canada	10,802	10,863	11,004	11,100
Mexico	33,603	35,378	34,999	31,931
United States	102,000	99,524	99,484	99,891
NORTH AMERICA	146,405	145,765	145,487	142,922
Costa Rica	1,620	1,753	1,735	1,738
Dominican Republic	1,990	2,000	1,990	1,990
El Salvador	1,024	1,101	1,144	1,162
Guatemala	2,560	2,550	2,225	2,225
Honduras	2,824	2,759	2,601	2,408
Panama	1,479	1,502	1,502	1,502
CENTRAL AMERICA & CARIB.	11,497	11,665	11,197	11,025
Argentina	51,683	50,782	50,282	50,081
Brazil	97,030	98,335	98,340	100,300
Colombia	18,819	18,400	17,627	16,814
Uruguay	9,778	10,306	10,502	9,072
Venezuela	12,331	12,756	13,095	13,395
SOUTH AMERICA	189,641	190,579	189,846	189,662
Belgium/Luxembourg	3,146	3,159	3,184	3,210
Denmark	2,490	2,323	2,226	2,170
France	22,171	21,052	19,609	18,761
Germany, Fed. Rep.	15,305	14,887	14,659	14,629
Greece	743	720	723	717
Ireland	5,626	5,580	5,637	5,796
Italy	8,921	8,870	8,850	8,830
Netherlands	4,922	4,546	4,606	4,550
Portugal	1,257	1,332	1,359	1,380
Spain	5,003	5,094	5,100	5,110
United Kingdom	12,476	11,849	11,902	12,000
EUROPEAN COMMUNITY	82,060	79,412	77,855	77,153
Austria	2,637	2,586	2,541	2,530
Finland	1,485	1,434	1,379	1,355
Sweden	1,665	1,667	1,676	1,707
Switzerland	1,858	1,808	1,850	1,848
OTHER WEST EUROPE	7,645	7,495	7,446	7,440
Bulgaria	1,705	1,673	1,640	1,640
Czechoslovakia	5,073	5,044	5,075	5,080
Germany, Dem. Rep.	5,804	5,721	5,710	5,720
Hungary	1,725	1,664	1,690	1,680
Poland	10,522	10,200	10,100	10,250
Romania	7,225	7,182	7,170	7,167
Yugoslavia	5,030	4,881	4,759	4,677
EAST EUROPE	37,084	36,365	36,144	36,214
U.S.S.R.	122,103	120,592	119,580	120,200
Israel	197	188	191	183
Saudi Arabia	264	281	250	228
Turkey	14,450	14,000	13,400	12,750
MIDDLE EAST	14,911	14,469	13,841	13,161
Egypt	4,900	4,616	4,648	4,637
South Africa	12,002	12,187	12,675	13,223
AFRICA	16,902	16,803	17,323	17,860
China	91,670	94,650	97,950	101,380
India	273,560	264,860	269,200	273,500
Korea, South	2,807	2,386	2,039	1,950
Japan	4,694	4,667	4,682	4,750
Philippines	4,615	4,590	4,492	4,450
Taiwan	153	172	176	179
ASIA	377,499	371,325	378,539	386,209
Australia	23,540	23,532	24,255	25,250
New Zealand	8,279	7,999	8,058	7,713
OCEANIA	31,819	31,531	32,313	32,963
TOTAL	1,037,566	1,026,001	1,029,571	1,034,809

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA  
SEPTEMBER 1989



TABLE 27

BEEF AND VEAL PRODUCTION, SELECTED COUNTRIES  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

	1987	1988	1989	1990
Canada	977	973	955	945
Mexico	1,205	1,746	2,140	1,904
United States	10,884	10,880	10,560	10,591
NORTH AMERICA	13,066	13,599	13,655	13,440
Costa Rica	92	86	85	86
Dominican Republic	53	61	59	59
El Salvador	20	23	23	23
Guatemala	54	61	65	65
Honduras	43	59	59	59
Panama	56	57	57	57
CENTRAL AMERICA & CARIB.	318	347	348	349
Argentina	2,700	2,610	2,520	2,440
Brazil	2,250	2,500	2,400	2,500
Colombia	654	707	744	753
Uruguay	277	321	346	265
Venezuela	276	307	325	327
SOUTH AMERICA	6,157	6,445	6,335	6,285
Belgium/Luxembourg	327	323	327	337
Denmark	235	217	205	202
France	1,912	1,780	1,655	1,580
Germany, Fed. Rep.	1,680	1,609	1,585	1,585
Greece	86	82	85	85
Ireland	484	452	441	454
Italy	1,170	1,130	1,125	1,125
Netherlands	535	506	490	480
Portugal	105	111	112	114
Spain	449	450	460	466
United Kingdom	1,088	945	957	965
EUROPEAN COMMUNITY	8,071	7,605	7,442	7,393
Austria	230	222	213	216
Finland	123	111	104	100
Sweden	135	127	134	137
Switzerland	173	157	163	161
OTHER WEST EUROPE	661	617	614	614
Bulgaria	165	165	163	165
Czechoslovakia	458	451	450	457
Germany, Dem. Rep.	472	470	465	466
Hungary	114	93	97	95
Poland	835	782	735	835
Romania	240	230	235	230
Yugoslavia	317	301	290	280
EAST EUROPE	2,601	2,492	2,435	2,528
U.S.S.R.	8,288	8,465	8,550	8,600
Israel	39	35	39	39
Saudi Arabia	18	24	23	24
Turkey	240	245	250	255
MIDDLE EAST	297	304	312	318
Egypt	477	450	452	454
South Africa	583	553	578	616
AFRICA	1,060	1,003	1,030	1,070
China	791	900	990	1,090
India	690	550	670	690
Korea, South	206	175	116	110
Japan	565	569	550	565
Philippines	84	86	85	87
Taiwan	4	5	5	6
ASIA	2,340	2,285	2,416	2,548
Australia	1,549	1,533	1,445	1,545
New Zealand	563	562	559	487
OCEANIA	2,112	2,095	2,004	2,032
TOTAL	44,971	45,257	45,141	45,177

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA  
SEPTEMBER 1989

TABLE 28

HOG INVENTORIES, SELECTED COUNTRIES  
(THOUSAND HEAD JANUARY 1)

	1987	1988	1989	1990
Canada	9,996	10,748	10,779	10,650
Mexico	12,357	10,879	9,003	8,283
United States	50,920	54,620	55,499	55,713
NORTH AMERICA	73,273	76,247	75,281	74,646
Brazil	31,700	31,700	33,200	32,700
Colombia	2,434	2,458	2,500	2,525
Guatemala	1,110	1,120	1,130	1,135
Venezuela	3,091	3,100	2,961	1,817
CENTRAL AND SOUTH AMERICA	38,335	38,378	39,791	38,177
Belgium/Luxembourg	5,838	5,958	6,234	6,150
Denmark	9,422	9,048	9,105	9,275
France	12,063	11,915	11,601	11,601
Germany, Fed. Rep	24,503	23,670	22,693	22,888
Greece	1,226	1,269	1,114	1,008
Ireland	980	960	961	960
Italy	9,278	9,400	9,400	9,450
Netherlands	14,063	14,226	13,820	13,700
Portugal	2,454	2,450	2,326	2,279
Spain	15,782	16,941	16,268	16,300
United Kingdom	7,955	7,915	7,628	7,600
EUROPEAN COMMUNITY	103,564	103,752	101,415	101,211
Austria	3,800	3,933	3,874	3,820
Finland	1,309	1,291	1,327	1,364
Sweden	2,235	2,274	2,320	2,250
Switzerland	1,917	1,923	1,869	1,857
OTHER WEST EUROPE	9,261	9,421	9,390	9,291
Bulgaria	4,050	4,034	4,075	4,075
Czechoslovakia	6,833	7,235	7,384	7,400
Germany, Dem. Rep.	12,840	12,503	12,464	12,152
Hungary	8,687	8,216	8,327	8,075
Poland	19,619	19,373	20,169	19,362
Romania	14,711	15,224	15,400	15,510
Yugoslavia	8,459	8,324	7,396	7,351
EAST EUROPE	75,199	74,909	75,215	73,925
U.S.S.R.	79,501	77,403	78,143	78,500
China	337,191	327,730	342,220	332,000
Korea, South	3,347	4,281	4,852	5,000
Japan	11,354	11,725	11,866	11,880
Philippines	7,114	7,581	7,775	7,900
Taiwan	7,057	7,129	6,954	6,900
ASIA	366,063	358,446	373,667	363,680
Australia	2,640	2,719	2,650	2,710
New Zealand	435	426	414	395
OCEANIA	3,075	3,145	3,064	3,105
TOTAL	748,271	741,701	755,966	742,535

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA  
SEPTEMBER 1989



TABLE 29

PORK PRODUCTION, SELECTED COUNTRIES  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

	1987	1988	1989	1990
Canada	1,131	1,188	1,150	1,115
Mexico	950	964	942	590
United States	6,520	7,114	7,224	7,150
NORTH AMERICA	8,601	9,266	9,316	8,855
Brazil	1,200	1,100	1,000	1,150
Colombia	122	131	137	140
Guatemala	14	14	15	15
Venezuela	139	148	166	115
CENTRAL AND SOUTH AMERICA	1,475	1,393	1,318	1,420
Belgium/Luxembourg	788	813	800	805
Denmark	1,149	1,168	1,182	1,220
France	1,536	1,599	1,610	1,610
Germany, Fed. Rep	2,856	2,838	2,700	2,720
Greece	164	160	158	157
Ireland	141	142	142	143
Italy	1,190	1,180	1,190	1,195
Netherlands	1,524	1,623	1,575	1,530
Portugal	217	211	207	198
Spain	1,489	1,722	1,735	1,740
United Kingdom	1,025	1,048	993	1,021
EUROPEAN COMMUNITY	12,079	12,504	12,292	12,339
Austria	388	399	389	397
Finland	175	168	169	172
Sweden	289	300	304	292
Switzerland	278	279	277	281
OTHER WEST EUROPE	1,130	1,146	1,139	1,142
Bulgaria	420	455	450	450
Czechoslovakia	843	938	952	954
Germany, Dem. Rep.	1,483	1,414	1,436	1,390
Hungary	1,064	986	950	946
Poland	1,745	1,828	1,685	1,685
Romania	900	840	875	920
Yugoslavia	871	855	800	770
EAST EUROPE	7,326	7,316	7,148	7,115
U.S.S.R.	6,324	6,476	6,600	6,650
China	18,349	20,170	20,530	21,160
Hong Kong	30	34	35	33
Korea, South	376	433	468	485
Japan	1,581	1,578	1,570	1,575
Philippines	489	520	575	600
Singapore	73	76	79	81
Taiwan	938	911	934	910
ASIA	21,836	23,722	24,191	24,844
Australia	283	298	302	304
New Zealand	44	43	46	43
OCEANIA	327	341	348	347
TOTAL	59,098	62,164	62,352	62,712

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TABLE 30

SHEEP INVENTORIES, SELECTED COUNTRIES  
(THOUSAND HEAD JANUARY 1)

	1987	1988	1989	1990
United States	10,334	10,784	10,802	10,500
NORTH AMERICA				
-----				
Argentina	28,998	29,202	29,345	29,365
Uruguay	25,707	27,365	28,420	28,420
SOUTH AMERICA	54,705	56,567	57,765	57,785
-----				
Belgium/Luxembourg	149	160	164	170
Denmark	70	73	86	100
France	10,580	10,360	10,150	10,000
Germany, Fed. Rep	1,383	1,414	1,430	1,450
Greece	10,000	10,512	10,694	10,804
Ireland	2,917	4,301	4,991	5,834
Italy	11,451	11,450	11,453	11,455
Netherlands	985	1,169	1,200	1,225
Portugal	3,118	3,180	3,187	3,200
Spain	17,600	20,310	22,544	24,450
United Kingdom	25,976	27,820	29,045	30,000
EUROPEAN COMMUNITY	84,229	90,749	94,944	98,688
-----				
Bulgaria	9,563	8,886	8,700	8,700
Czechoslovakia	1,087	1,087	1,087	1,087
Germany, Dem. Rep.	2,647	2,656	2,634	2,640
Hungary	2,337	2,336	2,216	2,050
Poland	4,300	4,075	3,852	3,800
Romania	18,762	18,900	19,400	19,500
Yugoslavia	7,819	7,824	7,564	7,369
EAST EUROPE	46,515	45,764	45,453	45,146
-----				
U.S.S.R.	142,210	140,783	140,684	140,700
-----				
Egypt	1,550	1,650	1,719	1,834
South Africa	29,753	29,640	30,935	32,481
AFRICA	31,303	31,290	32,654	34,315
-----				
India	55,482	51,684	53,486	55,188
Turkey	43,500	40,000	34,850	31,000
MIDDLE EAST & ASIA	98,982	91,684	88,336	86,188
-----				
Australia	158,800	162,500	174,000	183,300
New Zealand	69,204	64,244	64,600	60,860
OCEANIA	228,004	226,744	238,600	244,160
-----				
TOTAL	696,282	694,365	709,238	717,482
=====				
China *	166,220	180,340	201,530	221,700
TOTAL	862,502	874,705	910,768	939,182
=====				

\* Includes Goats In China.

FOREIGN PRODUCTION ESTIMATES DIVISION, FAS, USDA  
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TABLE 31

LAMB, MUTTON, GOAT MEAT PRODUCTION, SELECTED COUNTRIES  
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

	1987	1988	1989	1990
Canada	73	73	75	76
Mexico	143	152	153	152
NORTH AMERICA	216	225	228	228
Argentina	82	87	90	90
Uruguay	63	73	74	74
SOUTH AMERICA	145	160	164	164
Belgium/Luxembourg	7	7	7	7
Denmark	1	1	1	2
France	157	153	150	148
Germany, Fed. Rep	29	30	30	31
Greece	124	123	125	130
Ireland	48	50	57	65
Italy	68	68	69	70
Netherlands	10	12	13	13
Portugal	29	30	30	31
Spain	225	231	239	252
United Kingdom	297	321	339	346
EUROPEAN COMMUNITY	995	1,026	1,060	1,095
Bulgaria	110	102	100	110
Czechoslovakia	10	10	10	10
Germany, Dem. Rep.	19	19	18	18
Hungary	5	4	4	4
Poland	29	25	21	21
Romania	63	60	65	65
Yugoslavia	65	70	66	63
EAST EUROPE	301	290	284	291
U.S.S.R.	905	952	950	955
Egypt	50	52	53	54
South Africa	201	194	200	205
AFRICA	251	246	253	259
China	719	800	890	990
India	486	527	548	562
Turkey	382	385	387	390
MIDDLE EAST & ASIA	1,587	1,712	1,825	1,942
Australia	591	546	550	600
New Zealand	583	576	568	500
OCEANIA	1,174	1,122	1,118	1,100
TOTAL	5,574	5,733	5,882	6,034

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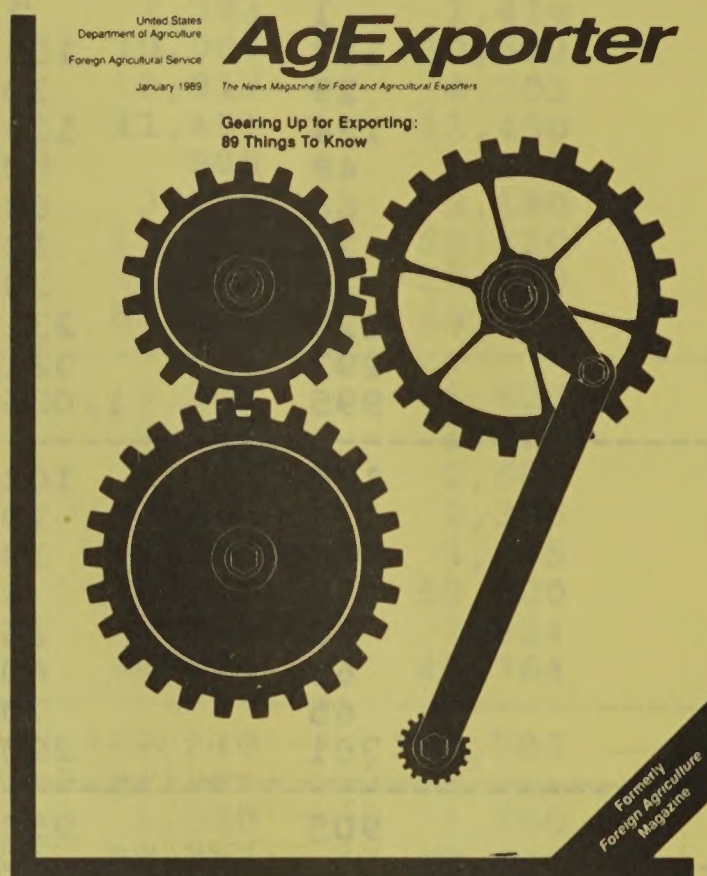
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